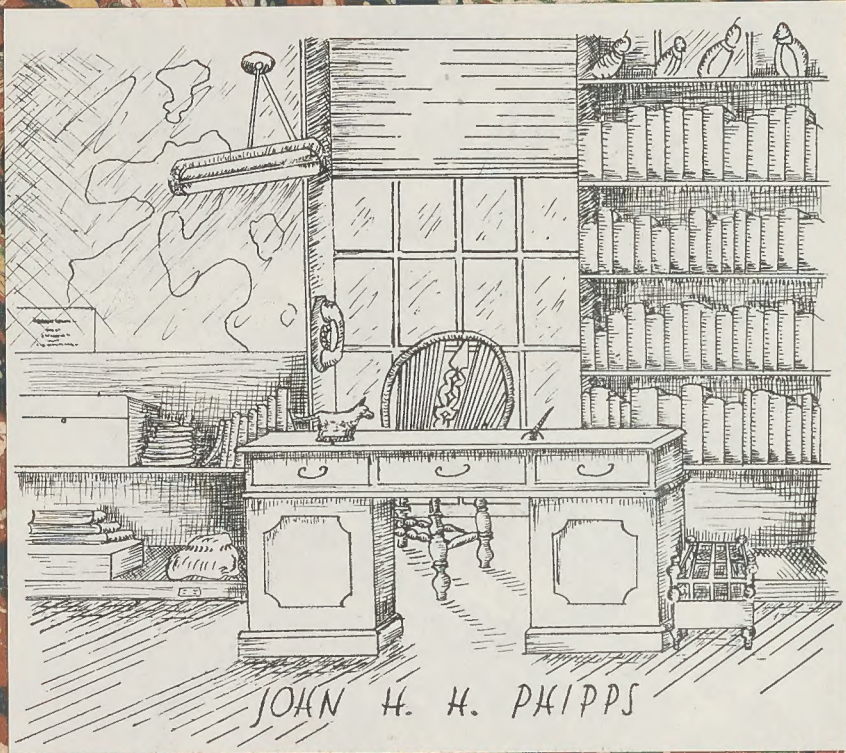






SIR DAVID LIONEL
GOLDSMID-STERN-SALOMONS, BART.
OF BROOMHILL TUNBRIDGE WELLS



THE
BIRDS OF NEW GUINEA

AND THE
ADJACENT PAPUAN ISLANDS,

INCLUDING MANY
NEW SPECIES RECENTLY DISCOVERED

IN
AUSTRALIA.

BY
JOHN GOULD, F.R.S.

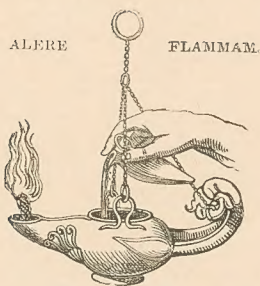
COMPLETED AFTER THE AUTHOR'S DEATH

BY
R. BOWDLER SHARPE, F.L.S. &c.,

ZOOLOGICAL DEPARTMENT, BRITISH MUSEUM.

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CONTENTS.

VOLUME IV.

PLATE			PART	DATE.
1.	Parus arfaki	New-Guinea Tit	IV.	1877.
2.	Dicæum pectorale	Müller's Flower-pecker	XXI.	1886.
3.	„ tristrami	Tristram's Flower-pecker	XVIII.	1884.
4.	„ æneum	Bronze-shaded Flower-pecker	XVII.	1884.
5.	„ fulgidum	Rosy-flanked Flower-pecker	XV.	1883.
6.	„ geelvinkianum	Geelvink-Bay Dicæum	IX.	1879.
7.	„ eximium	Brown Dicæum	VII.	1878.
8.	Ædistoma pygmæum	Pigmy Honey-eater	XX.	1885.
9.	Rhamphocharis crassirostris	Stout-billed Flower-pecker	XX.	1885.
10.	Pristorhamphus versteri	Verster's Flower-pecker	XIX.	1885.
11.	Urocharis longicauda	Long-tailed Flower-pecker	XIX.	1885.
12.	Macruropsar magnus	Long-tailed Glossy Starling	XIII.	1882.
13.	Calornis gularis	Purple-throated Glossy Starling	XX.	1885.
14.	„ feadensis	Fead-Island Starling	XXI.	1886.
15.	„ crassa	Slaty-grey Glossy Starling	XV.	1883.
16.	Melanopyrrhus anais	Orange-chested Starling	XXII.	1886.
17.	„ orientalis	Robertson's Starling	XXII.	1886.
18.	Lamprocorax minor	Lesser Brown-winged Starling	XXIII.	1887.
19.	Artamus maximus	Meyer's Wood-Swallow	VI.	1878.
20.	„ insignis	New-Ireland Wood-Swallow	VI.	1878.
21.	„ monachus	Hooded Wood-Swallow	VI.	1878.
22.	Munia grandis	Large Rufous-and-Black Finch	XIV.	1883.
23.	„ forbesi	Forbes's Munia	XII.	1881.
24.	Donacicola spectabilis	Orange-rumped Finch	XII.	1881.
25.	„ nigriceps	Black-cheeked Finch	XII.	1881.
26.	„ hunsteini	Hunstein's Weaver-Finch	XXIV.	1888.
27.	Pitta maxima	Great Pitta	II.	1876.
28.	Melampitta lugubris	Black Ground-Thrush	II.	1876.
29.	Pitta cyanonota	Blue-backed Pitta	XI.	1880.
30.	„ forsteni	Forsten's Pitta	X.	1879.
31.	„ concinna	Elegant Pitta	IX.	1879.
32.	„ cæruleitorques	Red-headed Pitta	VII.	1878.
33.	„ maforensis	Mafoor Island Pitta	VII.	1878.
34.	„ celebensis	Celebean Pitta	VII.	1878.
35.	„ rubrinucha	Red-naped Pitta	VII.	1878.
36.	„ novæ-guinææ	New-Guinea Pitta	IV.	1877.
37.	„ rosenbergii	Rosenberg's Pitta	IV.	1877.
38.	Collocalia terræ reginæ	Queensland Edible Swift	I.	1875.
39.	Ægotheles wallacii	Wallace's Goatsucker	XXI.	1886.
40.	Podargus ocellatus	Ocellated Goatsucker	XXIV.	1888.
41.	Microdynamis parva	Dwarf Koel	XXIV.	1888.
42.	Calliechthrus leucolophus	White-crowned Black Cuckoo	XXIII.	1887.
43.	Chalcites meyeri	Meyer's Golden Cuckoo	V.	1877.
44.	Nesocentor milo	Solomon-Island Lark-heeled Cuckoo	XXV.	1888.
45.	Ceyx solitaria	Solitary Kingfisher	III.	1876.
46.	„ gentiana	Gentian Kingfisher	XXII.	1886.
47.	Tanysiptera carolinæ	Blue-breasted Tanysiptera	III.	1876.
48.	„ nympha	Red-breasted Tanysiptera	VI.	1878.
49.	„ danaë	Crimson-and-Brown Kingfisher	XIII.	1882.
50.	„ nigriceps	Black-headed Tanysiptera	VII.	1878.
51.	„ microrhyncha	Port-Moresby Racket-tailed Kingfisher	XXIV.	1888.
52.	Sauromarptis gaudichaudi	Gaudichaud's Kingfisher	XI.	1880.
53.	Melidora macrorhina	Hook-billed Kingfisher	XIII.	1882.
54.	Halcyon tristrami	Tristram's Kingfisher	XIX.	1885.
55.	„ leucopygia	White-backed Kingfisher	XVIII.	1884.
56.	„ quadricolor	Four-coloured Kingfisher	XIII.	1882.
57.	„ nigrocyanea	Black-and-Blue Kingfisher	XI.	1880.
58.	„ stictolaema	Spotted-throated Kingfisher	XI.	1880.
59.	Clytoceyx rex	Spoon-billed Kingfisher	XII.	1881.



PARUS ARFAKI, *Meyer.*

PARUS ARFAKI, Meyer.

New-Guinea Tit.

Parus? arfaki, Meyer, Sitzungsber. der Isis, April 1875.—Mitth. a. d. k. zool. Mus. Dresden, i. p. 8, 1875.

THE great stronghold of the *Paridæ*, or family of Tits, is the temperate and northern region of the old world; from the boreal countries of Lapland and Siberia to the hot forests of India, its dependencies, and China, the numerous members are found; as we proceed southward from these countries the form gradually disappears, so that in Australia and New Zealand it is totally absent. It was, then, with considerable surprise that I received from Dr. Meyer an undoubted member of this family, collected, I believe, by himself in the northern part of New Guinea; and this unique specimen this gentleman has intrusted to my care for the purpose of figuring in the present work, accompanied by the following notes and description.

This new Tit reminds us in its general appearance of the crested Indian genus *Machlolophus*; but it differs from that form in the length of the first primary, in the rather lengthened pointed ear-feathers, and in the singular gold-brown coloration of the underparts. "Zoogeographically," says Dr. Meyer in a letter to me, "a species of *Parus* from New Guinea is very remarkable. *Parus cinereus*, Vieill., has been seen as far east as Flores (Wallace, Proc. Zool. Soc. 1863, p. 485); but from Australia, New Guinea, or the Moluccas no species of this genus has been known until now."

Dr. Meyer states that he believes that neither Signor d'Albertis nor other New-Guinea explorers met with this bird; neither does Salvadori mention it in his lists.

Forehead, upper and hinder parts of head, chin, throat, and chest black; rump olive green; cheeks and ear-patch bright yellow, the feathers of latter rather elongated and pointed; the whole of the underparts yellow, golden brown in the middle of the belly, merging into yellow on the flanks and under tail-coverts; on the three upper tertiary feathers an oval spot of yellow; bill black; feet light horn-colour, tarsi somewhat darker.

Total length $4\frac{1}{4}$ inches, bill $\frac{1}{2}$, tarsi $\frac{3}{4}$, wing $2\frac{3}{4}$, tail $2\frac{1}{4}$.

Hab. Arfak Mountains, New Guinea.

The figures in the accompanying Plate are of the natural size.



DICÆUM PECTORALE, M. & S.

DICÆUM PECTORALE, *Müll. & Schl.*

Müller's Flower-pecker.

Dicæum pectorale, Müll. & Schl. Verh. Natuurl. Geschied. Land- en Volkenk. p. 162, note (1839-44).—Hartl. Rev. Zool. 1846, p. 47.—Gray, Gen. B. i. p. 100 (1847).—Bp. Consp. Av. i. p. 403 (1850).—Sclater, Proc. Linn. Soc. ii. p. 157 (1858).—Gray, Proc. Zool. Soc. 1858, p. 190.—Id. Cat. Mamm. etc. New Guinea, pp. 22, 55 (1859).—Id. Proc. Zool. Soc. 1861, p. 434.—Rosenb. Nat. Tijdschr. Nederl. Ind. xxv. p. 237 (1863).—Id. J. f. O. 1864, p. 123.—Finsch, Neu-Guinea, p. 163 (1865).—Meyer, Sitz. k. Akad. Wien, lxx. p. 120 (1874).—Salvad. Ann. Mus. Civic. Genov. xvi. p. 67 (1880).—Id. Orn. Papuasie e delle Molucche, ii. p. 273 (1881).—Sharpe, Cat. Birds in Brit. Mus. x. p. 29 (1885).—Guillemard, Proc. Zool. Soc. 1885, p. 639.

Dicæum erythrothorax, pt., Gray, Hand-list Birds, i. p. 115, no. 1427 (1869).—Rosenb. Malay Arch. p. 553 (1879).

As most of the Flower-peckers in the Malayan Archipelago are confined to a single island, the present species must be considered to have rather a wide range, as it is not only found in North-western New Guinea, but also in the adjoining islands of Salwati, Mysol, Waigion, and Batanta.

It belongs to the olive-backed section of the genus *Dicæum*, without any red on the rump or on the crown, and with the head of the same colour as the back. Its nearest ally is *D. æneum* of the Solomon Islands, also figured in this work; but *D. pectorale* differs from that species in having no grey on the breast below the red spot, and it also has the breast dull olive like the flanks.

The species was first met with in New Guinea at Lobo Bay by Solomon Müller, and the localities recorded by Count Salvadori in North-western New Guinea are numerous, as Dr. Meyer, Dr. Beccari, and Mr. Bruijn have all procured it during their travels in the Arfak Mountains and their vicinity. Mr. Wallace procured specimens in Salwati, Waigiou, and Mysol, and Mr. Bruijn in Batanta. Nothing has been recorded concerning its habits.

The following description is copied from the British Museum 'Catalogue of Birds,' and is taken from a specimen in the Leiden Museum, procured by the late Dr. Bernstein in the island of Waigiou:—

"*Adult male*. General colour above olive-green, a little more olive-yellow on the head, which is olive like the back; rump and upper tail-coverts also a little more olive-yellow, particularly the latter; wing-coverts and quills dusky, with a steel-green gloss and narrowly edged with olive; tail-feathers blue-black; lores, sides of face, ear-coverts, and cheeks olive like the crown, the hinder cheeks washed with ashy grey like the sides of the neck; throat whitish, with a tinge of olive on the chin; fore neck and chest with a large patch of orange-scarlet; sides of breast ashy, more olive on the flanks; centre of abdomen, thighs, and under tail-coverts pale yellow, the latter with dusky bases; axillaries and under wing-coverts white, the edge of the wing dusky washed with olive; quills dusky below, white along the edge of the inner web: 'bill brownish black; feet dark greyish brown; iris brown' (*Guillemard*). Total length 2·8 inches, culmen 0·45, wing 2·05, tail 1·05, tarsus 0·5."

The Plate gives an illustration of an adult male in two positions, the figures being drawn from an Arfak skin lent to us by Dr. H. Guillemard.

[R. B. S.]



DICAEUM TRISTRAMI, Sharpe.

W. Hart del et lith.

Mintern Bros. imp.

DICÆUM TRISTRAMI, *Sharpe*.

Tristram's Flower-pecker.

Dicæum tristrami, Sharpe, Proc. Zool. Soc. 1883, p. 579.

THIS peculiarly coloured Flower-pecker was lent to us by Canon Tristram, and as we had every reason to believe it to be hitherto undescribed, we attached to it our friend's name in recognition of his many services to ornithology. The species was discovered by Lieut. Richards in Makira Harbour, in San Cristoval, one of the Solomon Islands.

It is not necessary to compare Tristram's Flower-pecker with any other members of the genus *Dicæum*, for its style of colouring is quite unique, and does not ally it with any of the species known up to the present time.

The following is a description of the type specimen, which is in Canon Tristram's collection :—

Adult male. General colour above chocolate-brown, the mantle slightly streaked with a few hoary whitish margins to the feathers ; wing-coverts darker chocolate-brown than the back ; bastard wing, primary-coverts, and quills blackish brown, the inner secondaries chocolate-brown like the back ; upper tail-coverts and tail blackish brown, contrasting sharply with the back ; head brown, but mottled with blackish-brown centres to the feathers, the plumes of the forehead and vertex margined with hoary whitish ; a line of feathers above the eye and ear-coverts hoary white, the latter slightly mottled, with brown bases ; lores, eyelid, fore part of cheeks, and base of chin blackish ; hinder cheeks, throat, and fore neck hoary white, with brown bases to the feathers ; sides of neck like the back ; centre of breast, abdomen, and under tail-coverts pure white, the sides of the body ashy ; sides of upper breast brown, with hoary whitish edges to the feathers ; axillaries and under wing-coverts white ; quills dusky below, ashy whitish along the edge of the inner web ; “ bill black ; feet black ; iris grey ” (*Richards*). Total length 3·5 inches, culmen 0·45, wing 2·3, tail 1·15, tarsus 0·55. (*Mus. H. B. Tristram.*)

The Plate represents the individual above described, of the natural size, in two positions.

[R. B. S.]



DICAËUM AENEUM.

DICÆUM ÆNEUM, *Jacq. et Pucher.*

Bronze-shaded Flower-pecker.

Dicée bronzée, Hombr. et Jacq. Voy. Pole Sud, Atlas, pl. 22. fig. 4 (1845).

Dicæum, sp., Gray, Gen. B. ii. p. 100 (1847).

Dicæum æneum, Jacq. et Pucher. Voy. Pole Sud, texte, iii. p. 97 (1853).—Hartl. J. f. O. 1854, pp. 165, 168.—

Gray, Cat. Birds Trop. Isl. Pacific Ocean, p. 10 (1859).—Id. Hand-l. B. i. p. 115, no. 1434 (1869).—

Sclater, Proc. Zool. Soc. 1869, p. 118.—Salvad. Ann. Mus. Civic. Genov. xvi. p. 68 (1880).—Id. Orn.

Papuasia, etc. ii. p. 281 (1881), iii. App. p. 540 (1882).

Microchelidon ænea, Reichenb. Handb. Spec. Orn. Scans. p. 244, Taf. 558. fig. 3797 (1853).

Dicæum erythrothorax, Ramsay, Proc. Linn. Soc. N. S. W. iv. p. 77 (1879, nec Less.).—Salvad. Ibis, 1880, p. 129.

THE family *Dicæidæ*, or Flower-peckers, is distributed over the greater part of the Indian and Australian regions, having a few representatives in the forests of Western Africa. They are particularly abundant in the Austro-Malayan subregion, nearly every island of the Moluccas and Papuasia having its own peculiar representative species of *Dicæum*.

The present bird is a native of Ugi, one of the Solomon Islands; and as most of the species inhabiting this Archipelago are nearly allied to others from New Guinea, it is not surprising to find that *Dicæum æneum* is a representative form of the scarlet-chested Flower-peckers found in the latter country and the neighbouring Moluccan islands. It resembles *Dicæum pectorale* of New Guinea, but is easily distinguished by the bronzy-greenish colour of the upper parts, the lighter blue-grey colour of the sides of the face, extending on to the sides of the fore neck and chest, and forming a large patch on the breast below the scarlet præpectoral spot; the flanks and sides of the body are also olive-yellow.

The following is a description of the adult male and female:—

Adult male. General colour above glossy oil-green, with a bronzy gloss; head like the back; sides of rump with a slight wash of olive-yellow; upper tail-coverts oily green; lesser and median wing-coverts glossy oil-green like the back; the greater coverts, bastard wing, primary-coverts, and quills blackish, externally glossed with oily green; tail-feathers greenish black; lores dull ashy grey; cheeks, ear-coverts, and sides of neck clear ashy grey, descending down the sides of the fore neck and occupying the whole of the breast; throat white, the sides of it ashy grey, blacker at the base of the malar line; a large triangular patch of scarlet occupying the whole of the fore neck; sides of breast and flanks bright olive-yellow; abdomen yellowish white; thighs ashy grey, white on their inner aspects; under tail-coverts white washed with yellow and having dusky bases; axillaries and under wing-coverts white, the edge of the wings blackish; quills blackish below, ashy white along the edge of the inner web. Total length 3·1 inches, culmen 0·45, wing 2·0, tail 1·0, tarsus 0·5.

Adult female. Differs from the male in wanting the scarlet patch on the fore neck, and in not having the patch of ashy grey on the breast; the throat and breast are yellowish white, with a few dusky margins to the lateral feathers of the breast; otherwise the under surface of the body is exactly like that of the male, the sides of the neck being ashy grey, descending on to the sides of the breast, and the rest of the sides of the body being bright olive-yellow; the upper surface resembles that of the male, being entirely oily or bronzy green; but there is a slight loreal streak of white, and the base of the lower mandible is pale, characters not seen in the adult male. Total length 3·25 inches, culmen 0·45, wing 1·95, tail 0·95, tarsus 0·5.

For the loan of the two specimens described above, we have been indebted to the kindness of Mr. E. P. Ramsay. The same birds are figured in the Plate, of the size of life.

[R. B. S.]



DICAENUM FULGIDUM, *Sclater*.

DICÆUM FULGIDUM, *Sclater*.

Rosy-flanked Flower-pecker.

Dicæum fulgidum, Sclater, Proc. Zool. Soc. 1883, p. 56.

Two specimens of this apparently new *Dicæum* were contained in Mr. Forbes's first collection from Timor laut. It differs from *D. ignicolle* from the Aru Islands, with which we have compared it, in having the rosy tint spread over the whole of the under surface, so that there is no olive on the flanks, but the lower abdomen and under tail-coverts are of a pale fawn-brown colour. It must be also very closely allied to *D. keiense* of Salvadori, from the Kei Islands; but this is described as having the abdomen olivaceous, yellow in the middle. Having regard to the way in which the different Molucca Islands possess their own peculiar species of *Dicæum*, it is not unreasonable to suppose that the birds coming from Timor laut will also be found to be specifically distinct from the Flower-peckers of the neighbouring islands.

The following description is from the type specimen, which was kindly lent to me by Dr. Sclater.

Adult male. General colour above dark purplish blue; wing-coverts like the back; quills black, externally, slightly glossed with purplish blue, a little more distinct on the innermost secondaries; tail-feathers purplish blue like the back, but slightly duller; lores black; sides of face, cheeks, and ear-coverts black, with a slight gloss of purplish blue; a very narrow line of black bordering the rami of the lower jaw; under surface of the body pale scarlet, richer on the fore neck and breast, and extending in a rosy tinge over the sides of the body, the lower flanks and vent being of a light fawn-brown; the chin whitish, and the centre of the body also mixed with white, the bases of the feathers being of this colour; in the centre of the breast a faintly indicated blackish spot; thighs black; under tail-coverts pale rose-colour; under wing-coverts and axillaries white; edge of wing and adjacent coverts black; quills blackish below, narrowly edged with white along the inner web; "bill, legs, and feet black; iris black" (*H. O. Forbes*). Total length 3·5 inches, culmen 0·4, wing 2·15, tail 1·25, tarsus 0·55.

The figures in the Plate are drawn from the typical example above mentioned.

[R. B. S.]



DICAËUM GEELVINKIANUM, *Meyer.*

DICÆUM GEELVINKIANUM, *Meyer*.

Geelvink-Bay Dicæum.

Dicæum geelvinkianum, Meyer, Sitzb. k. Akad. Wiss. Wien, lxx. p. 120.

Dicæum jobiense, Salvad. Ann. Mus. Civic. Genov. vii. p. 945 (1875).

My friend Dr. A. B. Meyer kindly submitted to me the types of the species described by him as *Dicæum geelvinkianum*, and I have figured them on the accompanying Plate. The species was originally described by him from the islands of Jobi, Misorì, and Mafoor, in Geelvink Bay; and the following are his remarks on the subject:—

“From the above-mentioned islands come some forms of a *Dicæum* which vary slightly among themselves according to locality, but which I nevertheless unite for the present under the name of *D. geelvinkianum*, as they all three differ from *D. pectorale*, Müller and Schlegel, of the mainland, in the red colour of the forehead, crown, and rump, though they otherwise entirely agree with this species, as well as in size.

“Examples from Mafoor, of which three males are before me, collected by myself in March 1873, and all agreeing perfectly together, have an olive-coloured upper surface, brownish red forehead, crown, and rump, while the breast-spot is large and fiery-red.

“Examples from Misorì (of which I have three males, agreeing perfectly together, shot in March 1873) have the upper surface more grey, the head coloured as in specimens from Mafoor, but the rump is somewhat more brilliant red; the breast-spot is small, and of a darker red.

“Lastly, on the island of Jobi, where I obtained a male and female in April 1873, the upper surface is somewhat shining metallic bluish, the crown, forehead, and rump are beautiful deep red, and the breast-spot is of moderate size and of the same colour as the head and rump. The female is uniform greenish grey above, clearer grey below, with a greenish cast, shading into yellowish white on the belly.

“The material at my disposal being all obtained at one season, I am not in a position to decide whether these differences are constant according to locality; nevertheless I consider that they are. Should this turn out so in the course of time, it will prove a not uninteresting example of the different variations of one and the same type in distinct isolated districts such as islands. If one does not admit the isolation as a cause of the difference, one is compelled to allow that the reasons for this variation are utterly unknown.”

I have quoted Dr. Meyer's remarks thus fully, as the nomenclature of the species is somewhat involved, by reason of Count Salvadori having received specimens from all three of the islands visited by Dr. Meyer, and having at once separated them as distinct species, giving the names of *Dicæum maforense*, *D. misoriense*, and *D. jobiense*, and saying, truly enough, that Dr. Meyer has not indicated which of the three species he would retain as *D. geelvinkianum* in the event of the other two proving distinct.

As will be seen from the accompanying Plate, it is the Jobi bird which Dr. Meyer has sent me as his *Dicæum geelvinkianum*; and as such I have figured it, and have added *Dicæum jobiense* of Salvadori as a synonym. I have little doubt that the view of the latter ornithologist is the correct one, and that there are three distinct species confounded under the heading of *D. geelvinkianum* by Dr. Meyer. The figures in the Plate represent a pair of birds, drawn of the natural size, from specimens in the Dresden Museum lent me by Dr. Meyer. I adopt the name of *geelvinkianum* here, as I am forced to do so by the fact of my Plate having been thus lettered, and the copies printed, before I received notice of Count Salvadori's nomenclature for the species.



DICEIUM EXIMIUM, *Sclater.*

DICÆUM EXIMIUM, *Sclater*.

Brown Dicæum.

Dicæum eximium, Sclater, P. Z. S. 1877, p. 102, pl. xiv. fig. 2.

THE home of this beautiful little bird, justly named *eximium*, is New Ireland, where it was procured by Mr. George Brown in March 1876. In describing the bird, Dr. Sclater remarked that it was different from any species known to him; and in looking over my series of Dicæidæ, I cannot find any single one which approaches it in style of coloration. Indeed it is seldom that such a very distinct species comes to our notice in these days; and we may fairly suppose that the group of islands where Mr. Brown worked will yield many further discoveries in natural science as they become better explored.

I have copied below the original description given by Dr. Sclater; and I can scarcely agree with him that the *Dicæum æneum* of Messrs. Jacquimot and Pucheran (Voy. Pôle Sud, Zool. iii. p. 97) is likely to turn out to be the female of the present bird. The last-named species is said to have been procured in the Solomon Islands; and perhaps a translation of the description may be useful for comparison. It is as follows:—

Grey, with bronzy reflections on the head, back, and upper wing-coverts; throat white, somewhat tinged with yellow, this yellow colour being a little more pronounced on the thorax; middle of abdomen white, the sides yellowish olive; quills blackish above, with the inner webs edged with clear greyish; under wing-coverts white, and the wing below ashy grey; the grey colour occupies also the sides of the neck, and impinges somewhat on the median line; quills blue-black, duller below; their coverts in the latter sense are yellow, somewhat inclining to whitish; the iris is yellow; bill and feet blue-black, with a little yellow at the base of the lower mandible.

The following is Dr. Sclater's original diagnosis of *D. eximium*:—Above dark bronzy green, the crown and sides of the head browner; rump crimson; under surface of body white, with a narrow pectoral band of crimson; sides of body and middle of belly dusky slate-colour; the flanks bronzy, as on the back; under wing-coverts white. Total length 3·3 inches, wing 2·0, tail 1·0.

The figure in the Plate is taken from the type specimen lent to me by Dr. Sclater, to whom, and to the Marquis of Tweeddale, I am under great obligations for allowing me to figure so many of the fine novelties discovered by Mr. George Brown.



ÆDISTOMA PYGMÆUM, *Salvad.*

ÆDISTOMA PYGMÆUM, *Salvad.*

Pigmy Honey-eater.

Ædistoma pygmæum, Salvad. Ann. Mus. Civic. Genov. vii. p. 952 (1875).—Id. op. cit. xvi. p. 74 (1880).—Id. Orn. Papuasias e delle Molucche, ii. p. 312 (1881).—Gadow, Cat. Birds in Brit. Mus. ix. p. 293 (1884).

For an opportunity of figuring this curious little bird we are indebted to the kindness of the Marquis Doria, who was so good as to send us one of the typical specimens from the Genoa Museum. Its small size, slender bill, and sober colouring recall the species of *Melilestes*, and, as in the latter genus, *Ædistoma* has very pronounced silky tufts on the flanks. Count Salvadori considers *Ædistoma* to be very nearly allied to *Melilestes*, but to be distinguished principally by the form of the bill; and this will be easily discernible on a comparison of the Plates given in the present work. We agree with him that the genera *Melilestes* and *Ædistoma*, along with *Glycichæra*, form a natural section of the *Meliphagidæ*, though they show a certain connection with the Sun-birds of the genera *Arachnothera* and *Anthothreptes*.

This species, as far as is known, is confined to the Arfak Mountains in North-western New Guinea.

The following description is taken from the typical specimen belonging to the Genoa Museum:—

Adult female. General colour above dark olive-green, slightly greyer on the head and more distinctly yellowish towards the rump, the feathers of which are long and silky and completely hide the upper tail-coverts; wing-coverts below the back, bastard-wing, primary-coverts, and quills ashy brown, edged with ashy, the secondaries with olive-yellow, lighter than the back; centre tail-feathers olive-green, the remainder dusky edged with olive-greenish; in front of the eyes a dusky spot; eyelid whitish; sides of face and ear-coverts pale ashy, whiter below the eye; throat whitish, with a slight greenish tinge; remainder of under surface pale sulphur-yellow, olive on the fore neck and chest, yellowish white on the centre of the breast and abdomen; axillaries pale sulphur-yellow like the sides of the body; quills dusky below, ashy along the inner web: “bill dusky, the base of the lower mandible dusky below; feet lead-colour” (*Beccari*). Total length 2·8 inches, culmen 0·5, wing 1·9, tail 0·8, tarsus 0·5.

The male, according to Count Salvadori, does not differ from the female in colour.

The figures in the Plate represent an adult bird in two positions, drawn from the typical specimen lent to us by the Marquis Doria.

[R. B. S.]



RHAMPHOCHARIS CRASSIROSTRIS, *Salvad.*

RHAMPHOCHARIS CRASSIROSTRIS, *Salvad.*

Stout-billed Flower-pecker.

Rhamphocharis crassirostris, Salvad. Ann. Mus. Civic. Genov. vii. p. 943 (1875).—Id. op. cit. xvi. p. 69 (1880).—
Id. Orn. Papuasia e delle Molucche, ii. p. 288 (1881).—Sharpe, Cat. Birds in Brit. Mus. x. p. 84 (1885).

THIS is at once one of the most curious and at the same time one of the most distinct of the Meliphagine Flower-peckers, by which term we mean those aberrant forms which inhabit New Guinea, and which connect the family *Dicæidæ* with the Honey-eaters or *Meliphagidæ*. It is difficult to say whether such genera as *Rhamphocharis* and its allies should be placed with the last-named family or at the end of the *Dicæidæ*, near the genera *Melanocharis* and *Pristorhamphus*. This is the view adopted by us in the ‘Catalogue of Birds,’ but as one of the principal characters of the *Dicæidæ* is the absence of a bastard-primary, and *Rhamphocharis* and the allied genera have a very distinct one, it is quite possible that in future re-arrangements of the family they may be left out of the *Dicæidæ* and joined to the *Meliphagidæ*. In any case the genus *Rhamphocharis* must be placed near to *Pristorhamphus*, from which it differs in the form of bill and also in having the wing longer than the tail.

The present species was discovered by Dr. Beccari in the Arfak Mountains in North-western New Guinea; and the following descriptions, copied from the ‘Catalogue of Birds,’ are taken from the typical specimens, kindly lent to us by the Marquis Doria:—

“*Adult male* (type of species). General colour above olive-green, glossed with oil-green; wing-coverts like the back; greater wing-coverts, bastard-wing, primary-coverts, and quills dusky brown, edged with olive-green, brighter on the quills; upper tail-coverts dusky, washed with olive-green; tail-feathers blackish, edged with olive-green; lores olive dusky; edge of eyelid white; ear-coverts and cheeks light ashy, with the upper parts of the ear-coverts dusky olive; entire under surface of body pearly grey, slightly washed with pale yellow; thighs and under tail-coverts a little darker ashy; axillaries pale yellow; wings white, with a pale yellow wash; quills dusky, ashy grey along the edge of the inner web. Total length 4·6 inches, culmen 0·6, wing 2·6, tail 1·75, tarsus 0·7.

“*Adult female*. General colour above olive-brown, rather greener on the lower back, rump, and upper tail-coverts, the head and back being spotted with minute tips of yellowish white on the feathers; the scapulars olive-brown like the back, similarly tipped with tiny white spots; wing-coverts like the back, with white spots at the end; the greater coverts, bastard-wing, primary-coverts, and quills dusky brown, edged with olive-green, the inner greater coverts with a whitish spot at the ends, the margins of the primaries yellower; tail-feathers blackish, edged with olive-green, with a tiny white spot at the end of the inner web, increasing gradually in extent and forming a well-marked spot on the outer tail-feathers; an indistinct eyebrow of pale olive-brown, lores dusky; eyelid whitish brown; ear-coverts dull olive-brown, streaked with dull white; cheeks brown, mottled with white spots; under surface of body yellowish white, mottled all over with dusky-brown centres to the feathers, smaller on the throat and nearly obsolete on the abdomen; thighs ashy tinged with yellow; under tail-coverts yellowish white with dusky centres, the feathers mottled like the breast; axillaries pale yellow; under wing-coverts white slightly washed with yellow, and mottled with dark-brown bases to the feathers; quills dusky below, greyish white along the edge of the inner web. Total length 4·9 inches, culmen 0·6, wing 2·85, tail 1·85, tarsus 0·75.”

The Plate represents a male and female of the natural size, and the figures have been drawn from the same pair of birds described above, lent to us by the Marquis Doria.

[R. B. S.]



PRISTORHAMPHUS VERSTERI, *Finsch.*

W. Hart del et lith.

Mintern Bros. imp.

PRISTORHAMPHUS VERSTERI, *Finsch.*

Verster's Flower-pecker.

Pristorhamphus versteri, Finsch, Proc. Zool. Soc. 1875, p. 642.—Salvad. Ann. Mus. Civic. Genov. vii. p. 940 (1875).—Id. op. cit. xvi. p. 69 (1880).—Id. Orn. Papuasie e delle Molucche, ii. p. 286 (1881).—Sharpe, Cat. Birds in Brit. Mus. x. p. 82 (1885).

THIS elegant little bird was first described by Dr. Otto Finsch from two female specimens in the Leiden Museum, to which institution it was sent from the Arfak Mountains. Dr. Beccari has likewise procured it in this locality, and M. Laglaise at Karons, but it has not been found up to the present time in any other part of New Guinea.

One of the chief characters of the genus *Pristorhamphus* is its abnormally long tail coupled with a peculiar elongation of the upper and under tail-coverts, while the conspicuous white marking on the tail-feathers renders the male bird easily recognizable; the female is more like the same sex in the genus *Melanocharis*.

The following descriptions are copied from the British Museum 'Catalogue of Birds':—

“Adult male. General colour above velvety black with a slight steel-green lustre, which is more distinct on the scapulars; lesser and median wing-coverts glossy steel-green with velvety-black bases; bastard-wing, primary-coverts, and quills ashy blackish, externally glossy steel-green; upper tail-coverts very long, glossy steel-blue; tail-feathers black, waved with dusky under certain lights, glossed externally with steel-blue; the basal half of all the feathers white, only seen when the tail is spread; head glossy steel-green; lores, feathers round the eye, cheeks, ear-coverts, and sides of face velvety black; a little spot of silky white on the upper edge of the eyelid; under surface of body pale slaty blue; thighs and under tail-coverts black, the latter washed with steel-blue; a large tuft of silky white plumes on the side of the body; axillaries and under wing-coverts white; quills blackish, white along the inner web; bill and feet black. Total length 5·8 inches, culmen 0·55, wing 2·45, tail 3, tarsus 0·95.

“Adult female. General colour above dull olive-green, slightly yellower on the rump and upper tail-coverts; wing-coverts like the back; bastard-wing uniform dusky brown; primary-coverts and quills dusky brown, narrowly margined with yellowish olive, the secondaries more broadly edged with olive-green like the greater coverts; two centre tail-feathers olive-green, blackish towards the base; remainder of tail-feathers blue-black, browner at the ends, edged with olive-green, the three outer ones with a white spot about the middle of the feather; head like the back; lores, feathers round the eye, cheeks, and ear-coverts dingy olive, with pale shaft-lines on the ear-coverts; under surface of body ashy olive washed with pale yellow, with narrow edges of the latter colour to most of the feathers; thighs dull ashy; under tail-coverts dingy olive; on the flanks a tuft of silky white; axillaries pale yellow; under wing-coverts white, washed with pale yellow; quills dusky below, greyish white along the edge of the inner web. Total length 5·6 inches, culmen 0·55, wing 2·65, tail 2·6, tarsus 0·85.”

The figures in the Plate are drawn from a pair of birds lent to us by the Marquis Doria, and represent a male and female of the natural size.

[R. B. S.]



UROCHARIS LONGICAUDA, *Salvad.*

UROCHARIS LONGICAUDA.

Long-tailed Flower-pecker.

Melanocharis longicauda, Salvad. Ann. Mus. Civic. Genov. vii. p. 942 (1875).—Id. op. cit. x. 144 (1877).—
Id. op. cit. xii. p. 333 (1878).

Urocharis longicauda, Salvad. Ann. Mus. Civic. Genov. xvi. p. 69 (1880).—Id. Orn. Papuasias e delle Molucche,
ii. p. 286 (1881).—Sharpe, Cat. Birds in Brit. Mus. x. p. 79 (1885).

As Count Salvadori has pointed out, the present species is intermediate in character between *Melanocharis* and *Pristorhamphus*, and he therefore very rightly made it the type of a new genus. From *Pristorhamphus* it is distinguished by the notch on the second primary, and from *Melanocharis* it differs in the form of the bill, which is broader than it is high at the nostrils and has a sharp ridge to the culmen.

At present only three specimens of this bird have been sent from North-western New Guinea, and it would appear to be confined to the Arfak Mountains, where it was met with by D'Albertis and Beccari as well as by Mr. Bruijn's hunters. A full account of these specimens is given by Count Salvadori in his great work on the birds of New Guinea, and we here reproduce the descriptions taken from the typical examples and published in the British Museum 'Catalogue of Birds.'

“*Adult male* (type of species). General colour above glossy steel-black, the feathers with ashy-grey bases, which show rather distinctly on the rump; lesser and median wing-coverts like the back; greater coverts, bastard-wing, primary-coverts, and quills black, edged with steel-black like the back, less distinctly on the primaries; tail-feathers black, slightly glossed on the margins with steel-blue, the outer tail-feather white for three quarters of the outer web; crown of head like the back; eyelid also black; lores and sides of face dusky olive, blackish along the hinder margin of the ear-coverts; throat and chest ashy olive, clearer olive-yellowish on the breast and abdomen, the feathers in most cases margined with pale yellow; thighs dusky olive; under tail-coverts dusky olive, with pale yellowish margins; axillaries pale yellow; under wing-coverts silky white, washed with pale yellow; quills blackish below, ashy white along the edge of the inner web. Total length 4·8 inches, culmen 0·5, wing 2·5, tail 2, tarsus 0·7.

“*Adult female*. Different from the male. General colour above olive-green, with an oily green gloss; wing-coverts like the back; bastard-wing, primary-coverts, and primaries blackish, obsoletely edged with olive-green like the back, the secondaries with broader olive-green margins like the greater wing-coverts; tail as in the male; head olive-green like the back, and with the same oily green gloss; eyelid and sides of face ashy olive, the lores and cheeks ashy grey washed with olive; under surface of body as in the male. Total length 5·1 inches, culmen 0·45, wing 2·45, tail 2·2, tarsus 0·65.”

The Plate represents the adult male and female of the size of life, drawn from the type specimens kindly lent to us by the Marquis Doria.

[R. B. S.]



MACRUOPSAR MAGNUS.

MACRUOPSAR MAGNUS.

Long-tailed Glossy Starling.

Lamprotornis magnus, Rosenb. in litt.—Schleg. Ned. Tijdschr. Dierk. iv. p. 18 (1871).—Wald. Trans. Zool. Soc. ix. p. 205 (1873).—Rosenb. Reist. naar Geelvinkb. pp. 37, 47, 140 (1875).—Id. Malay Archip. pp. 558, 591 (1879).

Aplonis magna, Gieb. Thes. Orn. ii. p. 428 (1875).

Lamprotornis major, Salvad. Ann. Mus. Civ. Gen. xii. p. 345 (1878).

Macruopsar magnus, Salvad. Ann. Mus. Civ. Gen. xii. p. 345 (1878); xvi. p. 195, no. 8 (1880).—Id. Orn. Papuaasia, &c. ii. p. 458 (1881).

THIS peculiar Glossy Starling is to all intents and purposes a *Calornis* with an exceptionally long tail. The last-named genus is very strongly represented in the Papuan region; and one species at least, the *Calornis inornata* of Salvadori, lives in the same island as the *Macruopsar*. The latter bird inhabits the islands of Mafoor and Misorì, in the Bay of Geelvink, in both of which it was met with by Baron Rosenberg, the original discoverer of the species. Dr. Beccari also obtained it on both islands; but Dr. Meyer appears to have procured it only in Misorì.

Count Salvadori states that the examples from Mafoor, collected by Beccari, had the tail shorter than specimens from Misorì; and he considers it not improbable that the birds may be found to constitute two races when a larger series of specimens can be compared.

The adult male is described by Count Salvadori as follows:—

“Entirely dull green with a metallic gloss, the head slightly purplish; wings and tail duller; tail very long and graduated, with obscure barrings under certain lights; bill and feet black.”

The female is similar to the male. The young bird is dusky blackish above, white below streaked with black.

The single figure in the Plate represents an adult bird, of about the size of life.

I am indebted to the kindness of Professor Steere, who, on his return journey through London after his travels to the East, lent me the bird from which the life-sized figure in the Plate has been drawn.

[R. B. S.]



CALORNIS GULARIS, Gray

W. Hart del et lith.

Mintern Bros. imp.

CALORNIS GULARIS, *Gray*.

Purple-throated Glossy Starling.

- Calornis gularis*, Gray, Proc. Zool. Soc. 1861, pp. 431, 436.—Id. Hand-list of Birds, ii. p. 27, no. 6385 (1870).—Walden, Trans. Zool. Soc. viii. p. 80 (1872).—Sharpe, Ibis, 1876, p. 47.—Rosenb. Malay. Arch. p. 395 (1879).—Forbes, Proc. Zool. Soc. 1884, p. 433.—Id. Nat. Wand. East. Arch. p. 365 (1885).
Calornis metallica, Sclater, Proc. Zool. Soc. 1883, p. 51 (nec Temm.).
Calornis circumscripta, Meyer, Sitz. u. Abhandl. Gesellsch. Isis, 1884, Abth. i. p. 49.—Salvad. Proc. Zool. Soc. 1884, p. 579.
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In the year 1861 the late Mr. G. R. Gray described a Glossy Starling, under the name of *Calornis gularis*, which had been sent by Mr. A. R. Wallace from the island of Mysol. The type specimen is still in the British Museum and has been variously referred by ornithologists to *Calornis metallica* or to a separate and distinct species. In 1872 the late Marquis of Tweeddale spoke of the species as “apparently nothing but *C. metallica* ;” but in a small review of the genus published by us in 1876 we ventured to differ from Lord Tweeddale, and affirmed that *C. gularis* was a distinct species, recognizable by its small bill and purple throat. Count Salvadori, on the other hand, who examined the type specimen, which still remained unique in the British Museum, did not hesitate to unite it to *C. metallica* ; and when Mr. Forbes’s specimens arrived from Timor Laut, Dr. Sclater identified them as belonging to the last-named species. Dr. Meyer, however, having received some more specimens from Timor Laut, forwarded by Mr. Riedel, considered the *Calornis* from this group of islands to be distinct from *C. metallica*, and described it as *C. circumscripta* ; and in this view he has been upheld by Count Salvadori, who does not agree with Mr. Forbes in calling the bird from Timor Laut *Calornis gularis*. Mr. Forbes has published his reasons for considering *C. circumscripta* of Meyer to be synonymous with *C. gularis* of Gray, and he submitted his series to our examination and for exact comparison with the type of *C. gularis*. So convinced were we of the correctness of his identification, that we agreed to figure the latter species from a pair of Mr. Forbes’s Timor-Laut skins, and since then Dr. Meyer has lent us some of the typical examples of his *C. circumscripta*. These, however, only confirm the correctness of Mr. Forbes’s identification ; and we are perfectly certain that if Dr. Meyer and Count Salvadori could re-examine the type of *C. gularis*, they would both be convinced of the absolute identity of *C. circumscripta*. The type of *C. gularis* is labelled by Mr. Wallace, and the locality is in his own handwriting, so that it is unlikely that a mistake in the habitat of the species has been made ; but we agree with Count Salvadori that it is curious that the same species should inhabit Mysol and Timor Laut, “so far apart one from the other, while true *C. metallica* lives in so many islands lying between them.”

The figures in the Plate represent the male and female of about the natural size ; they have been drawn from a pair of birds procured in Timor Laut by Mr. Forbes.

[R. B. S.]



CALORNIS FEADENSIS, Ramsay.

CALORNIS FEADENSIS, *Ramsay*.

Fead-Island Starling.

Calornis (*Aplonis*) *feadensis*, Ramsay, Journ. Linn. Soc., Zool. xvi. p. 129 (1881).—Reichen. & Schalow, Journ. für Orn. 1882, p. 227.

Calornis feadensis, Salvad. Ann. Mus. Civic. Genov. xviii. p. 426 (1882).—Id. Orn. Papuasie e delle Molucche, iii. App. p. 550 (1882).

THE genera *Aplonis* and *Calornis* may ultimately be found to be undistinguishable, and certainly the present bird seems to be a connecting link between the two genera. The species of *Calornis* are of more brilliant coloration, and the bill is not so stout nor so arched as in *Aplonis*; and in the former respect *C. feadensis* agrees with the Polynesian Starlings, while in the shape of the bill it is more like *Calornis*, in which genus we have retained it. Its nearest allies are *C. cantoroides* and that group of *Calornis*, but it possesses a peculiar dull coloration, sufficient to distinguish it at a glance.

As its name implies, it is an inhabitant of Fead Island, one of the Solomon group, and it was here discovered by the Rev. George Brown. Only a single specimen is at present known, and for the loan of this typical example we are indebted to our kind friend Mr. E. P. Ramsay, who described the species.

The following description is taken from the type:—

Adult. Entirely sooty, with here and there a shade of steel-green; wing-coverts, quills, and tail-feathers dusky black, externally washed with steel-green; entire head and under surface of body sooty black, with scarcely any indication of a greenish gloss. Total length 7 inches, culmen 0·85, wing 4·45, tail 2·4, tarsus 1·05.

On the Plate is represented the figure of an adult bird of the natural size, drawn from the specimen above mentioned.

[R. B. S.]



CALORNIS CRASSA, *Sclater*.

CALORNIS CRASSA, *Sclater*.

Slaty-grey Glossy Starling.

Calornis crassa, Sclater, Proc. Zool. Soc. 1883, p. 56, pl. 14.

THE peculiar slaty hue of the plumage of this species of *Calornis* seems to separate it at once from all its allies. We have carefully compared the type specimens with the large series of *Calornis* in the British Museum, and we find that there is no species which approaches *Calornis crassa* in the grey shade of its plumage, which much resembles that of some of the Starlings of the genus *Aplonis*.

Mr. H. O. Forbes discovered the present species during his expedition to the Tenimber Islands, and procured a large series of specimens on the island of Larat in August 1882.

The following is a description of the type specimens lent to us by Dr. Sclater :—

Adult male. General colour above slaty grey, with a greenish gloss, the feathers of the head and neck lanceolate in form; lesser and median wing-coverts like the back; greater coverts, bastard wing, primary-coverts, and quills blackish, externally washed with greenish grey; tail-feathers blackish, with a slight wash of grey on the outer margins; lores black; sides of face and entire under surface of body slaty grey, the plumes of the throat lanceolate; under wing-coverts and axillaries like the breast; quills dusky below, browner along the inner webs; “bill, legs, and feet black; iris dark brown” (*H. O. Forbes*). Total length 7·4 inches, culmen 0·8, wing 4·0, tail 2·9, tarsus 0·95.

Adult female. Different from the male. More ashy grey above, with a less pronounced greenish gloss, the head, neck, and mantle with dusky shaft-lines or blackish centres to the feathers; lesser wing-coverts like the back; remainder of wing-coverts and quills purplish brown, with lighter brown edges; tail-feathers blackish; lores and eyelid blackish; sides of face and ear-coverts slaty grey glossed with green, the cheeks streaked with whitish; under surface of body creamy white, streaked with ashy brown down the centre of the feathers, very narrowly on the throat and fore neck, more broadly on the breast and flanks, and extremely so on the under tail-coverts; the sides of the body washed with slaty grey; thighs slaty grey; abdomen whiter than the breast, and narrowly streaked with blackish; axillaries and under wing-coverts light ashy brown; quills dusky below, browner on the inner webs. Total length 7·3 inches, culmen 0·8, wing 3·8, tail 2·65, tarsus 0·9.

The figures in the Plate represent a male and female of the present species, of the natural size. They are drawn from the typical specimens now deposited in the British Museum.

[R. B. S.]



MELANOPYRRHUS ANAIS.

MELANOPYRRHUS ANAIS.

Orange-chested Starling.

- Sericulus anais*, Less. Rev. Zool. 1844, p. 44.—Bp. Consp. i. p. 349 (1850).—Id. Compt. Rend. xxxvii. p. 831 (1853).—Sclater, Proc. Zool. Soc. 1857, p. 6.—G. R. Gray, Proc. Zool. Soc. 1858, p. 192, 1861, p. 434.—Rosenb. Nat. Tijdschr. Nederl. Ind. xxv. p. 234 (1863).—Id. J. f. O. 1864, p. 121.
- Oriolus? anais*, G. R. Gray, Gen. B. App. p. ii (1849).—Id. Cat. B. New Guinea, pp. 26, 57 (1859).
- Pastor nigrocinctus*, Cass. Proc. Acad. Nat. Sc. Philad. 1850, p. 68.—Sclater, Proc. Zool. Soc. 1857, p. 6.
- Melanopyrrhus anais*, Bp. Compt. Rend. xxxvii. p. 831 (1853).—Id. Notes Coll. Delattre, p. 9 (1854).—Sclater, Proc. Zool. Soc. 1857, p. 6.—Id. Journ. Linn. Soc. ii. p. 159 (1858).—Salvad. Ann. Mus. Civic. Genov. x. p. 150 (1877), xvi. p. 195 (1880).—Id. Orn. Papuasie e delle Molucche, ii. p. 462 (1881).—Guillemard, Proc. Zool. Soc. 1885, p. 644.
- Gracula pectoralis*, Wallace, Proc. Zool. Soc. 1862, p. 166, pl. xx.—Sclater, Ibis, 1863, p. 225.—Finsch, Neu-Guinea, p. 174 (1865).
- Gracula (Melanopyrrhus) anais*, G. R. Gray, Ann. & Mag. Nat. Hist. (3), x. p. 473 (1862).
- Gracula anais*, Wallace, Ann. & Mag. Nat. Hist. (3), xi. p. 15 (1863).—Schleg. Mus. P.-B. *Coraces*, p. 98 (1867).—Id. Nederl. Tijdschr. Dierk. iv. p. 18 (1871).—Sclater, Proc. Zool. Soc. 1873, p. 697.—Rosenb. Malay. Archip. p. 554 (1879).
- Eulabes anais*, G. R. Gray, Hand-list Birds, ii. p. 19, no. 6276 (1870).

THIS beautiful form of Starling is peculiar to New Guinea, and appears to be intermediate between the Mynahs (*Eulabes*) and the Crested Starlings (*Basilornis*). We have therefore followed Count Salvadori in considering it to belong to a separate genus, *Melanopyrrhus*, which he has located in the vicinity of the above-named genera.

The present species is very rare in collections, even at this date, and for many years it was known only by imperfect skins prepared by native hunters, and thus the early descriptions were very inaccurate. In 1862 Mr. Wallace gave a good description for the first time, accompanied by an excellent figure by Mr. Wolf.

The habitat of *M. anais* appears to be North-western New Guinea and Salwati. Mr. Wallace and most recent travellers have met with it near Sorong, and Mr. Bruijn and Dr. Beccari at Ramoi, Mariati, and Dorei-hum.

We transcribe herewith the description given by Count Salvadori in his great work on the 'Birds of Papuasie,' as the series examined by him has far exceeded that at our own disposition:—

Adult. Whole of the head, throat, back, wing-coverts, and abdomen black, the feathers with broad margins of glossy green, some of them changing to violet-blue under certain lights; lower throat and upper breast, rump, upper tail-coverts, and lower abdomen ochreous yellow, with an orange tinge; a cervical collar of pale ochreous yellow, produced laterally on both sides of the head into an occipital band; under tail-coverts yellow, the longer ones white with scarcely any yellow; a white band on the wing in the middle of the quills; under wing-coverts black; a bare space round the eye; feathers of the eyelids black; iris yellow; bill and feet pale yellow.

Young. Similar to the adult, but with the feathers of the breast and abdomen regularly margined with pale yellow; the cervical collar, rump, and upper tail-coverts paler yellow.

The figures in the Plate represent an adult specimen in two positions, and are drawn from an example lent to us by Dr. Guillemard.

[R. B. S.]



MELANOPYRRHUS ORIENTALIS.

MELANOPYRRHUS ORIENTALIS.

Robertson's Starling.

- Gracula anais*, Schlegel, Nederl. Tijdschr. Dierk. iv. p. 18 (1871, nec Less.).
Gracula anais orientalis, Schlegel, Nederl. Tijdschr. Dierk. iv. p. 52 (1871).—Rosenb. Reis. naar Geelvinkbai, p. 140 (1875).
Gracula orientalis, Beccari, Ann. Mus. Civic. Genov. vii. p. 714 (1875).—Ramsay, Proc. Linn. Soc. New South Wales, iv. p. 99 (1879).
Gracula rosenbergii, Finsch in Brehm's 'Gefangene Vögel,' ii. p. 562 (1876).
Melanopyrrhus orientalis, Salvad. Ann. Mus. Civic. Genov. viii. p. 401 (1876), x. pp. 12, 20, note (1877).—D'Albert. & Salvad. op. cit. xiv. p. 90 (1879).—Salvad. op. cit. xvi. p. 195 (1880).—Id. Orn. Papuasie delle Molucche, ii. p. 463 (1881).—Guillemard, Proc. Zool. Soc. 1885, p. 644.
Mina robertsonii, D'Albert. Ann. Mus. Civic. Genov. x. pp. 12, 20 (1877).—Id. Ibis, 1877, p. 368.
Gracula affinis, Rosenb. Malay. Arch. pp. 554, 590 (1879).
Eulabes orientalis, Ramsay, Proc. Linn. Soc. N. S. Wales, iii. p. 279 (1879).
Melanopyrrhus robertsonii, Sharpe, Journ. Linn. Soc. xiv. pp. 633, 687 (1879).
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THIS species is closely allied to *M. anais*, but differs in having the whole of the head and neck golden yellow. Its habitat is also somewhat different from that of the foregoing species, as it is found chiefly in South-eastern New Guinea, being by no means uncommon in collections from Port Moresby, while Signor D'Albertis procured a large series on the Fly River. It likewise occurs in North-western New Guinea, having been met with at Bondey by Baron von Rosenberg, at Rubi by Dr. Meyer, and at Wandammen by Dr. Beccari.

The specimen figured in the accompanying Plate is, according to the researches of Count Salvadori, not perfectly adult, as it shows a patch of black feathers on the occiput. Sometimes also yellow plumes are seen on the throat, and the breadth of the yellow margins to the abdominal plumes also varies much in proportion to the presence or absence of black feathers on the occiput. Count Salvadori very truly remarks that the great variation in plumage exhibited by the series of thirty specimens examined by him seems to indicate that the species has not yet acquired absolute stability of character.

The following description is translated from Count Salvadori's work on the 'Birds of New Guinea':—

Head and entire hind neck, upper breast, rump, and upper tail-coverts golden yellow; eyebrows, cheeks, and throat black, the latter often more or less varied with yellow; back, wing-coverts, abdomen, and thighs black, with a green gloss on the edges of the feathers; wings and tail black; primary-quills with a white spot in the middle; iris yellow; bill and feet pale yellow.

The Plate represents a mature, but not quite adult, bird in two positions. The figures have been drawn from a specimen lent to us by Dr. Guillemard, and supposed to come from the Arfak Mountains.

[R. B. S.]



LAMPROCORAX GRANDIS.

LAMPROCORAX MINOR, *Ramsay*.

Lesser Brown-winged Starling.

Sturnoides minor, Ramsay, Proc. Linn. Soc. N. S. Wales, vi. p. 726 (1882).—Id. op. cit. vii. p. 26 (1883).

Lamprocorax? *minor*, Salvad. Ann. Mus. Civic. Genov. xviii. p. 426 (1882).—Id. Orn. Papuasie e delle Molucche, iii. App. p. 500 (1882).

Calornis fulvipennis, Tristram, Ibis, 1882, p. 137 (nec Jacq. et Puch.).

Sturnoides (Lamprotornis) minor, Ramsay, Proc. Linn. Soc. N. S. Wales, vii. p. 668 (1883).

BOTH Lieut. Richards and Mr. Stephen have met with this species in the island of San Christoval in the Solomon Archipelago, and Canon Tristram has kindly lent us a specimen obtained in that island by the first-named naturalist. It would appear to be a smaller species than *L. grandis*, which it much resembles, and if Mr. Ramsay is correct, both species occur in the island of San Christoval (cf. Proc. Linn. Soc. N. S. Wales, vii. p. 668); but we fancy that he has written "San Christoval" by a slip of the pen instead of Guadalcanar and Lango, in which islands Mr. Cockerell met with it (cf. Ramsay, *op. cit.* iv. p. 76).

The following is a description of the specimen lent to us by Canon Tristram:—

Adult female. General colour above glossy greenish black, each feather with a mesial streak of glossy green; wing-coverts black, edged with glossy green; bastard-wing and primary-coverts black; quills dark brown, internally pale brown, the secondaries much lighter brown, forming a marked contrast to the colour of the back; upper tail-coverts like the back; tail-feathers dark brown; crown of head like the back, as also the sides of the face; ear-coverts, cheeks, throat, and fore neck like the back and similarly streaked; rest of the under surface greenish black, but not so plainly streaked; under wing-coverts and axillaries like the breast; quills below dusky, reddish on the inner web: "bill black; feet black; iris red" (*G. E. Richards*). Total length 8 inches, culmen 0·8, wing 4·35, tail 2·8, tarsus 1·05.

The two figures in the accompanying Plate represent the species of the size of life; they are drawn from the specimen lent to us by Canon Tristram.

P.S.—This Plate was prepared some months before the letterpress was written, and it was lettered *L. grandis* from Canon Tristram's identification of the specimen. Subsequent study has shown us that this identification was wrong; but the mistake was not found out in time to alter the Plate, which was already printed off.

[R. B. S.]



ARTAMUS MAXIMUS, Meyer.

ARTAMUS MAXIMUS, *Meyer*.

Meyer's Wood-Swallow.

Artamus maximus, Meyer, Sitz. k. Akad. Wien, lxxix. part 1, p. 203.—Beccari, Ann. Mus. Civic. Genov. vii. p. 710 (1875).—Sclater, Ibis, 1876, p. 248.

THE genus *Artamus* is one of those peculiar forms of bird life which do not seem to have any immediate allies in the natural system; and for many years it has puzzled ornithologists where these Wood-Swallows should be placed. I can hardly subscribe to the opinion of Mr. Wallace, who places them near the Starlings from their wing-structure; for at the same time their habits are not those of Sturnine birds. But I must reject the arrangement of the late Mr. Gray, who places several Shrikes, such as *Leptopterus* and *Cyanolanius*, in the genus *Artamus*. Whether the curious African genus *Pseudochelidon* is really allied to *Artamus* I cannot determine; but I should think it more probably a Shrike-like form, in which case we should have *Artamus* as a genus inhabiting only the Indian and Australian regions. As we proceed southwards towards New Guinea we find the species increasing in number, until we meet with the metropolis of the genus in Australia, whence it extends to New Caledonia, and even to the Fiji Islands.

When Dr. Meyer described the present species, and bestowed upon it the name of *maximus*, he was scarcely justified in doing so. That it is one of the largest Wood-Swallows discovered, is true; and it will be seen by a comparison of the measurements that it exceeds slightly the newly discovered *Artamus insignis*, which is very nearly its equal in size; but *A. monachus* of Celebes is quite as long as *A. maximus*, and has even a stronger bill. In addition to the large dimensions, the black coloration of Meyer's Wood-Swallow makes it a very characteristic species.

We know very little about the habits of the present bird. Dr. Beccari, in his interesting letter on the ornithology of New Guinea, gives the following note:—" *Artamus maximus* is very common from 3000 to 5000 feet, and has the same habits as *A. papuensis*. It is enough to say that it flies like a Swallow, and sits on the branches of dead trees, especially in the middle of plantations. I have only got one or two specimens, because, through some fatality, I missed all the shots I fired." The above seems to comprise all that has been published respecting this fine Wood-Swallow, which doubtless does not differ in its economy from the other *Artami*.

In a specimen of this bird from Atam, recently lent to me by Mr. A. Boucard, I notice that the bill is almost white, whereas in the typical example it is blue. I fancy that this variation in colour is due to the fading of the bill after death. The following description is taken from the type specimen lent me by Dr. Meyer:—

General colour above black, including the wings and tail, the two latter with a slight slaty gloss; all the feathers slaty grey at base; rump and upper tail-coverts white; sides of face, sides of neck, throat, and fore neck black, like the back; remainder of under surface of body pure white; under wing-coverts and axillaries white, the small coverts along the outer edge of the wing black; quills greyish below. Total length 7·5 inches, culmen 0·8, wing 6·3, tail 2·8, tarsus 0·75.

The principal figure in the Plate represents the species of the size of life, and is drawn from the type specimen kindly lent me by Dr. Meyer.



ARTAMUS INSIGNIS, Sclater.

ARTAMUS INSIGNIS, *Sclater*.

New-Ireland Wood-Swallow.

Artamus insignis, Sclater, P. Z. S. 1877, p. 101, pl. xv.

I THOROUGHLY indorse the term *insignis* (or “remarkable”), which has been applied to this species by Dr. Sclater; for, in my opinion, it is the handsomest of all the Wood-Swallows. The number of *Artami* has not been greatly increased since I published my ‘Birds of Australia;’ but at that time, certainly, the two finest species, *A. maximus* and *A. insignis*, were not known. I have therefore great pleasure in presenting my readers with figures of these beautiful birds.

Of the subject of the present article we have very little to record. It is one of the discoveries of Mr. George Brown, who procured it in New Ireland in March 1876; and the two specimens obtained are in the collection of the Marquis of Tweeddale, along with the rest of Mr. Brown’s ornithological trophies. Dr. Sclater, who described it, observes that it is closely allied to *A. monachus* of Celebes, but differs in having the wings and tail black, as may be seen by a comparison of the Plates of these two birds given in this work. In his account of the collections sent by Mr. Brown, Dr. Sclater has pointed out in certain of the species a slight indication of Celebesian affinities, and he observes with regard to the *Artamus*:—“Here is a second instance of a repetition on the further side of New Guinea of a Celebesian type, *A. monachus* of Celebes being certainly the nearest known ally of this fine new species. I have examined a specimen of *A. melaleucus* (Forst.), of New Caledonia, in the British Museum, but find it quite distinct, having the upper back black. *A. maximus*, Meyer, of New Guinea, is of the same large size as the present bird, but has the whole back black.”

General colour above pure white; the head and neck all round, the wings, and tail black; under surface of the body, from the black throat downwards, pure white; under wing-coverts white, the small ones along the edge of the wing black; bill bluish. Total length 7·3 inches, culmen 1·0, wing 5·65, tail 2·6, tarsus 0·8.

The principal figures in the Plate are of the natural size, and are drawn from the type specimens in the collection of the Marquis of Tweeddale.



ARTAMUS MONACHUS, Temm.

ARTAMUS MONACHUS, *Temm.*

Hooded Wood-Swallow.

Artamus monachus, Bonap. Consp. Gen. Av. i. p. 343 (1850, ex Temm.).—Wallace, Ibis, 1860, p. 141.—Id. P. Z. S. 1862, p. 340.—Gray, Hand-l. Birds, i. p. 289. no. 4272 (1869).—Walden, Trans. Zool. Soc. viii. p. 67, pl. vi. fig. 1 (1872).

It might be supposed by some of my readers, owing to my having figured the present species perched upon a stranded snag in the middle of a stream, accompanied by a sleepy floating alligator, that this was the usual habitat of one or other of this family of birds. Such, however, is not the case; for I myself have never seen them haunting rivers. But I was reading a short time ago an account of a voyage in the Moluccas; and *Artamus* was described as having been observed in the position drawn by me; so I have endeavoured to reproduce some idea of the scene.

I have always felt an especial interest in the genus *Artamus*, as I have probably seen more species of the genus in their native haunts than any man living; and I have had the good fortune to describe no less than five out of the seventeen or eighteen known. Although the Australian Wood-Swallows are of very varied coloration, they cannot be considered so fine as some of the insular species, such as *A. maximus*, *A. insignis*, or the subject of the present article, *A. monachus*. These are certainly the most remarkable members of the genus *Artamus*, and surpass the other species in size and beauty.

In the 'Birds of Australia' I have given details of the habits of the Wood-Swallows; and doubtless the economy of all is very similar. The present bird is found only in the island of Celebes and the adjoining group of the Sula Islands, which lie to the eastward. Mr. Wallace says that it is found in the mountain districts of North Celebes; and Lord Tweeddale, in his well-known paper on the birds of this island, points out that the Sula specimens do not quite agree with Bonaparte's original diagnosis of the species. I have, however, the good fortune to possess a skin from Celebes itself, sent to me in exchange from the Leiden Museum; and I have compared it with Sula-Island specimens, and cannot find any difference in coloration, though the Celebes bird is rather longer in the wing; there can, I think, be no doubt as to their identity.

The accompanying description is taken from a female bird in my own collection, received from the Leiden Museum, and marked as having been obtained in Celebes by Heer von Duivenbode; but as the sexes are alike, the following colour will suffice for both:—

Above white from the hind neck to the tail, and including the scapulars; head and neck all round, including the throat, light umber brown, darker on the crown; least and median wing-coverts umber brown, the rest of the wing dark ashy brown; tail ashy brown; under surface of body from the fore neck downwards, and including the thighs and under wing- and tail-coverts, pure white; edge of wing ashy brown; quills grey below, whitish along the inner web. Total length 7·5 inches, culmen 1·05, wing 6·3, tail 2·9, tarsus 0·75.

The principal figure in the Plate is drawn from the before-mentioned specimen, and represents the species of the size of life.



MUNIA GRANDIS, Sharpe.

MUNIA GRANDIS, *Sharpe*.

Large Rufous-and-black Finch.

Munia grandis, Sharpe, Journ. Linn. Soc. (Zool.) vol. xvi. p. 319 (1882).

THIS large species of *Munia* belong to the widely spread section of Rufous-and-black Finches, of which *Munia rubronigra* is the best-known representative. It would seem to be nearly allied to *M. jagori* of Cabanis, a Philippine species which has been once collected by Dr. Meyer in the island Halmahera or Gilolo. The present bird, however, would seem to differ by its larger size, and by having the whole of the black abdomen so completely joined to the black breast as to leave only a patch of rufous on the sides of the body.

But a single specimen of this species was collected by Mr. Goldie in the Astrolabe Mountains. He procured it in the Taburi district, where it was called by the natives "Quaita."

I give the following description from Mr. Bowdler Sharpe's paper:—

"General colour above light bay, the rump and upper tail-coverts shining straw-yellow; least and median coverts like the back; greater coverts darker and more chestnut; primary-coverts and quills dusky brown, externally chestnut, the innermost secondaries entirely of the latter colour; central tail-feathers straw-yellow, dark brown along the middle; remainder of tail-feathers edged with straw-yellow; entire head and neck all round jet-black, as well as the breast and entire under surface, with the exception of a patch of light chestnut on the sides of the breast and upper flanks; under wing-coverts and axillaries light reddish, the lower series ashy rufous; quills dusky brown below, ashy rufous along the edge of the inner web. Total length 4 inches, culmen 0·5, wing 2·2, tail 1·55, tarsus 0·65."

The two figures in the Plate represent the male bird in different positions and of the natural size. They have been drawn from the typical specimen in the British Museum.

[R. B. S.]



MUNIA FORBESI, *Sclater*.

MUNIA FORBESI, *Sclater*.

Forbes's Munia.

Munia forbesi, Sclater, Proc. Zool. Soc. 1879, p. 449, pl. xxxvii. fig. 3.—Reichenow & Schalow, Journ. f. Orn. 1880, p. 203.—Salvad. Ann. Mus. Civic. Genova, xvi. p. 192 (1880).—Id. Ornitologia della Papuasìa &c. p. 438 (1881).

THIS is a very fine and large species of *Munia*, recently discovered in New Ireland by the Rev. George Brown, who procured one specimen only, in the district of Topaio, in September 1878. In the style of coloration it differs greatly from the species of the genus which are found in Australia and the Papuan Islands, and belongs rather to the Indian group, of which *Munia malacca* is the type.

In addition to the large size of the present species, it may be told from any of the other Papuan *Muniæ* by the following characters, which are here quoted from Count Salvadori's new work on the Ornithology of New Guinea. It has the upper tail-coverts, as well as the rump, rufous, the sides of the body rufous, not streaked with black; and the head and under tail-coverts are black, while the breast and entire abdomen are rufous. The nearest ally to the present bird is *Munia jagori* of the Philippines; but that species has the breast and abdomen black like the remainder of the undersurface.

Dr. Sclater gave the following diagnosis of the species, which is named after Mr. W. A. Forbes, the well-known Prosector to the Zoological Society, who has made a special study of the Fringillidæ:—

Rufous, a little paler underneath; head all round, as well as the throat, flanks, and lower part of the belly, including the thighs and under tail-coverts, black, the latter being elongated; bill and feet black; the bill very stout.

Total length 4 inches, wing 2, tail 1·5.

The Plate represents two birds, of the size of life. They are drawn from the unique specimen now in the British Museum, and lent to me by Dr. Sclater before its incorporation in the national collection.



DONACICOLA SPECTABILIS, *Selater.*

DONACICOLA SPECTABILIS, *Sclater*.

Orange-rumped Finch.

Donacicola spectabilis, Sclater, P. Z. S. 1879, p. 449, pl. xxxvii. fig. 2.—Salvad. Orn. della Papuasias &c. ii. p. 441 (1881).

THE genus *Donacicola* (as it is now written, instead of my original name *Donacola*, which, I admit, was not classically compounded) contains a very few species of little Finches, all of which are peculiar to the Australian region. The best-known of them is the Chestnut-breasted Finch (*D. castaneothorax*) of Australia; and a very closely allied species is found in South-eastern New Guinea, the *D. nigriceps* of Ramsay. The discovery of a new species in New Britain is of some interest, as showing the Papuan element in Australian ornithology, or, if one prefers it, the Australian element in the Papuan avifauna. It is to be regretted that the Finches are at present in such a neglected state as regards their classification, that the value of the different genera has never been worked out by a competent ornithologist; and therefore it is only fair to state that Dr. Sclater, in his original description of this species, has compared it with my *Donacicola flavoprymna* as its nearest ally, and Mr. G. R. Gray classes the latter species as a *Munia*. I must confess that the present bird is very like a *Munia* in appearance and less like a *Donacicola* than the more typical species of the latter genus.

The single specimen at present known was procured in New Britain by the Rev. G. Brown, to whom we are indebted for the discovery recently of so many fine novelties; and I translate the description given by Dr. Sclater (*l. c.*).

General colour brown; the head, nape, and sides of breast black; upper tail-coverts and margins of the central tail-feathers pale chestnut; under surface of body white; throat, lower part of the belly, and vent, with the thighs, black; under wing-coverts ochraceous white; bill and feet black. Total length 3·4 inches, wing 1·8, tail 1·2.

I am indebted to Dr. Sclater for the loan of the unique specimen of the present bird, which has since passed into the collection of the British Museum.



DONACICOLA NIGRICEPS, Ramsay.

DONACICOLA NIGRICEPS, *Ramsay*.

The Black-cheeked Finch.

Donacula nigriceps, Ramsay, Proc. Linn. Soc. N. S. W. i. p. 393 (1876).—Sharpe, Journ. Pr. Linn. Soc. xiii. p. 601 (1877), xiv. p. 688, no. 38 (1878); Ramsay, op. cit. iii. p. 289 (1879), iv. p. 100, no. 149 (1879).

Donacicola nigriceps, Salvad. Ann. Mus. Civ. Genova, xvi. p. 192, no. 9 (1880).—Id. Orn. della Papuasias &c. ii. p. 441 (1881).

THIS little Finch appears to represent in South-eastern New Guinea the *Donacicola castaneothorax* which I described from Australia, and which, according to Mr. E. P. Ramsay, occurs all over the eastern part of that continent, from New South Wales to Cape York, and is also found in the Gulf of Carpentaria, but whose place is taken in South-eastern New Guinea by the present species. It is very closely allied to *D. castaneothorax*, but may be told at a glance by its black head only slightly spotted with ashy, and still more distinctly by its entirely black cheeks. I have only seen a very few specimens from the immediate vicinity of Port Moresby, where it was procured by Mr. Octavius Stone; and I have not seen any examples from the interior of South-eastern New Guinea. Its habits and mode of life are doubtless similar to those of the other Australian Finches of the genus *Donacicola*.

Adult.—General colour above delicate burnt-sienna, with ashy shading to the feathers of the back; the rump and upper tail-coverts orange, with dusky bases to the feathers; tail-feathers pointed, dark brown with straw-yellow margins, the two centre feathers almost entirely straw-yellow; head and nape chocolate-brown, veined with streaks and spots of ashy whitish, the nape-feathers edged with the latter colour; lores, feathers above the eye, entire sides of face, and throat uniform black; fore neck and chest entirely pinkish fawn-colour, forming a large plastron, succeeded by a band of black across the lower breast; centre of the body and abdomen pure white, the flanks regularly barred with black and white; thighs and under tail-coverts black; under wing-coverts buffy white; the edge of the wing minutely barred with black and white; wing-coverts above sienna-brown; quills light brown, externally washed with sienna-brown, ashy brown below, edged with buff along the inner web. Total length 3·8 inches, culmen 0·4, wing 2, tail 1·55, tarsus 0·6.

The above description has been taken from Mr. Sharpe's account of Mr. Stone's collection; and I am indebted to the latter gentleman for the loan of the specimens from which the figures in the Plate have been drawn. They represent two adult birds, of the natural size.



DONACICOLA HUNSTEINI, *Finsch.*

DONACICOLA HUNSTEINI, *Finsch*.

Hunstein's Weaver-Finch.

Donacicola hunsteini, Finsch, Ibis, 1886, p. 1, pl. 1.

THIS very distinct species of Weaver-Finch is one of the most interesting discoveries made by the well-known traveller Dr. Otto Finsch, during his expeditions to New Guinea and the islands of the South Seas. He met with the present bird in New Ireland, where, he says, "it was discovered at the extreme north corner of the island. It lives in the high jungle-grass and is difficult to obtain."

The following is a description of the typical specimens, which are now in the British Museum :—

Adult male. General colour above black, the rump and upper tail-coverts chestnut with a wash of golden yellow; wing-coverts black like the back; bastard-wing, primary-coverts, and quills rather paler blackish brown edged with golden; tail-feathers blackish brown, the centre ones golden towards the ends, like the upper tail-coverts; crown of head, nape, and hind neck hoary grey, mottled with blackish bases to the feathers; lores and feathers below the eye, eyelid, and fore part of cheeks black; ear-coverts hoary grey like the head, a shade of the same colour overspreading the hinder cheeks; throat and entire under surface of body velvety black; under wing-coverts pale tawny buff, the edge of the wing black; quills below blackish, pale tawny buff along the inner edge: "bill and feet black; iris dark" (*O. Finsch*). Total length 3·5 inches, culmen 0·4, wing 2·0, tail 1·15, tarsus 0·6.

Adult female. Similar to the male in colour. Total length 3·5 inches, culmen 0·4, wing 1·9, tail 1·2, tarsus 0·55.

Young. Brown, without any of the chestnut on the rump and tail, and only a slight indication of grey here and there on the head; side of face, cheeks, throat, and chest dark chocolate-brown, the breast and abdomen isabelline buff.

The figures in the Plate represent an adult male and female, as well as a young bird. They are drawn from the typical examples described above.

[R. B. S.]



PITTA MAXIMA, Mull and Schleg.

PITTA MAXIMA, Müll. & Schl.

Great Pitta.

Pitta maxima, Müll. & Schl. Verh. Nat. Gesch. Ned. Ind. Zool. p. 14.—Westerm. Bijdr. Dierk. p. 45, *Pitta*, pl. 1.—Gray, Gen. B. i. p. 213.—Wallace, Ibis, 1859, p. 112, 1860, p. 197.—Schl. Vog. Nederl. Ind. *Pitta*, p. 30.—Gray, Hand-l. B. i. p. 296.

Brachyurus maximus, Bp. Consp. i. p. 253.—Elliot, Monogr. Pittidæ, pl. 12.

Gigantipitta maxima, Bp. Consp. Vol. Anisod. p. 7.

Pitta gigas, Wallace, Malay Arch. ii. p. 3.

THERE are several species of Ant-Thrushes which are nearly, if not quite, equal to the present bird in size; so that the specific name of *maxima* would be by no means justified, if naturalists were content to class all these birds under the heading of genus *Pitta*. By many writers, however, the large Ant-Thrushes of Malaisia and the eastern Himalayas are generically separated as *Hydrornis*; and Mr. George Robert Gray was inclined to range the present bird under the same heading. In this I cannot agree; I think that it should be kept along with the true *Pittæ*, of course in the short-tailed group. Whether the latter section should be regarded as constituting a separate genus is quite another matter; I consider this much more feasible. Throughout the present work, however, I have retained these particoloured Ant-Thrushes under the genus *Pitta* in preference to *Brachyurus*, and therefore adhere to it in the present instance.

The habitat of this beautiful bird is the Moluccan island of Gilolo. Very little has been recorded of its habits. Mr. Wallace, in his 'Malay Archipelago,' writes that during his stay in the above-mentioned island his boy Ali shot "a pair of one of the most beautiful birds of the east—*Pitta gigas*, a large Ground-Thrush, whose plumage of velvety black above is relieved by a breast of pure white, shoulders of azure blue, and belly of vivid crimson. It has very long and strong legs, and hops about with such activity, in the dense tangled forest bristling with rocks, as to make it very difficult to shoot." From the above short note of Mr. Wallace's we can imagine what a beautiful sight it must be to see this finely plumaged bird in its native forests; and even in a tropical island like Gilolo, where brilliantly coloured birds abound, there can be few to compete with the subject of our present article.

No description of the bird is necessary, as it stands alone among the Pittidæ, and has no near allies. The Plate gives a correct idea of the plumage; and the principal figure is full-sized.



MELAMPITTA LUGUBRIS, Schl.

J. Gould & W. Hart del. et lith.

Walter imp.

MELAMPITTA LUGUBRIS, *Schlegel*.

Black Ground-Thrush.

Melampitta lugubris, Schl. N. T. D. iv. p. 47.—Slater, P. Z. S. 1873, p. 696.

WHAT are the natural affinities of this most curious bird? is a question which will exercise the ingenuity of ornithologists for some time to come. The generic appellation *Melampitta*, or "Black Ground-Thrush," bestowed upon it by Professor Schlegel, shows that by that eminent ornithologist the bird was evidently considered a near ally of the genus *Pitta*; and this is the position which I myself would assign to it. But the interesting aspect of the question still remains with regard to the affinities of the Mascarene genus *Philepitta*, another systematic puzzle to ornithologists. As the name of the latter genus implies, it was considered to be a relation of the Pittidæ, in which family it has generally been included; but Mr. Sharpe has referred it to the Paradiseidæ—an indication of the difficulty presented by the structural peculiarities of the bird.

An important link between *Pitta* and *Philepitta* seems to be offered in the present species, which unites the general appearance of a true Ground-Thrush with something of that velvety plumage for which *Philepitta* is famous; and therefore I cannot but regard this discovery of Baron von Rosenberg's as of the highest interest to the ornithologist, not only as uniting genera whose affinities were doubtful, but also as exhibiting another of the mysterious links which unite the fauna of Madagascar and certain portions of the Malayan archipelago.

Nothing is known of the present species beyond the fact that it was discovered in the northern peninsula of New Guinea, and was afterwards met with by d'Albertis in the Atam district.

The entire bird is black with a slight bluish tinge, the feathers of the forehead, region of the eye, lores, base of mandible, and chin having a velvety appearance. The length is about six inches.

My Plate is taken from Signor d'Albertis's Atam specimen, and represents the species of the size of life.



PITTA CYANONOTA, Gray.

PITTA CYANONOTA, *Gray*.

Blue-backed Pitta.

Pitta cyanonota, Gray, Proc. Zool. Soc. 1860, p. 351.—Schl. Mus. Pays-Bas, *Pitta*, p. 8.—Id. Vog. Nederl. Indië, *Pitta*, pp. 18, 35.—Finsch, Neu-Guinea, p. 168.—Gray, Hand-l. B. i. p. 296, no. 4380.—Schl. Mus. Pays-Bas, Revue *Pitta*, p. 13.
Brachyurus cyanonotus, Elliot, Monogr. Pittidæ, pl. xx.—Id. Ibis, 1870, p. 418.

THIS species belongs to the section of the genus *Pitta* which is called by some ornithologists *Erythropitta*, containing certain red-breasted species from the Indo-Malayan islands, the Moluccas, and New Guinea, which form a very natural group. The present bird is one of the best-defined species of the section, being distinguished at a glance by its blue back. It was discovered by Mr. Wallace in the small island of Ternate; and later on Dr. Bernstein also met with it in the same locality, to which for some time it was supposed to be confined. The latter ornithologist, however, afterwards procured the species in the island of Guebeh; so that, as Professor Schlegel remarks, it appears to represent in these two islands the *Pitta rufiventris* of Halmahera (or, as we English naturalists miscall the island, Gilolo). It is distinguished from the last-named bird by its blue back. The Dutch travellers Bernstein and Von Rosenberg procured a good series of specimens in Ternate, meeting with the species apparently all the year round. Sixteen specimens from this island alone are preserved in the Leiden Museum, having been killed in the months of May, June, August, and November. On the 6th of May, 1871, Von Rosenberg took two nestlings; so that this month may be taken as indicating the breeding-season, though it is evident that the eggs must be deposited in the month of April.

The following is a description of the species:—General colour of the upper surface blue, the crown dull reddish, brighter red on the nape, hind neck, and sides of crown; lores, sides of face, and throat dusky brown washed with reddish; fore neck and chest bright blue, forming a band; remainder of the under surface scarlet; tail a little duller blue than the back; wing-coverts blue, like the back, with a small spot of white on the shoulder, formed by white marks near the base of the outer web of some of the smaller coverts; quills blackish, washed with the same blue as the back on the outer web, broader on the secondaries, the innermost of which are like the back; the third primary marked with a spot of white near the base of the inner web only, the fourth primary having a white spot on both outer and inner web.

The figures in the Plate are drawn from specimens in my own collection; they represent the birds of the natural size. It should be noticed that the white shoulder-spot which is conspicuous in one individual, is absent in another.



PITTA FORSTERI, Mull.

PITTA FORSTENI.

Forsten's Pitta.

Pitta melanocephala, Müll. & Schl. Verh. Natuurl. Geschied., Zool., *Pitta*, p. 19 (1844, ex Forsten, MSS., nec Wagler).—Westerm. Bijdr. Dierk. Amsterd. (folio), i. part vi. (1854), p. 46, pl. 2.—Schlegel, Mus. Pays-Bas, *Pitta*, p. 4 (1863).—Id. Vog. Nederl. Indië, *Pitta*, pp. 5, 30, pl. ii. fig. 1 (1863).—Id. Mus. Pays-Bas, *Pitta*, Revue, p. 9 (1874).

Brachyurus forsteni, Bonap. Consp. Gen. Av. i. p. 256 (1850).—Elliot, Ibis, 1870, p. 419.

Melanopitta forsteni, Bp. Consp. Volucr. Anis. 1854, p. 7, no. 195.—Walden, Trans. Zool. Soc. viii. p. 62 (1872).

Brachyurus (Melanopitta) forsteni, Elliot, Monogr. Pittidæ, pl. xxiv. (1863).

Pitta forsteni, Gray, Hand-list of Birds, i. p. 295, no. 4363 (1869).

THE genus *Pitta* has been divided by some ornithologists into various subgenera, founded for the most part on the prevailing style of coloration; and so strongly characterized are these differences of coloration, that I am inclined to admit them as generic characters of no small value. To take, for instance, the section to which Forsten's *Pitta* belongs, and to which the subgeneric title *Melanopitta* has been given, how unmistakable a character is the black head! while at the same time it is accompanied by a green plumage strongly varied by a red vent and under tail-coverts and a lustrous green shoulder-patch. As a rule, too, the black-headed Pittas are remarkable for their white quills, which must form a very conspicuous feature when the birds are alive; and many of the species depend upon the amount of white on the wing-feathers for their separation one from the other. It may be taken, therefore, as a character of the greatest importance that Forsten's *Pitta* has the quills entirely black; and it is on this account nearest allied to *P. novæ-guinæ*, which has only a concealed white spot on the fourth, fifth, and sixth quills. The last-named bird, moreover, differs in having a blue shade bordering the black ventral patch, the absence of which in *P. forsteni* is compensated for by a broad band of metallic greenish blue across the upper tail-coverts. This band is found in most of the black-headed Pittas; but in *P. novæ-guinæ* it is scarcely distinguishable, being represented only by a slight metallic green tip to a few of the upper tail-coverts.

As far as we know at present, Forsten's *Pitta* is found only in the island of Celebes, and seems, indeed, to be confined to the northern parts of that island. It was found by Dr. Forsten at Kema and at Tondano. I have specimens in my collection from Menado, collected by Dr. Meyer; and the following description is taken from one of these.

Adult. General colour above bright grass-green with somewhat of a metallic lustre; lesser and median wing-coverts bright metallic greenish cobalt, forming a shoulder-patch; greater series green; primary-coverts and quills black, the secondaries black, externally green, like the back, the innermost entirely green; most of the upper tail-coverts metallic greenish cobalt, forming a transverse band; longer upper tail-coverts and tail-feathers dull green; head and hind neck, sides of face and ear-coverts, cheeks and throat black; rest of under surface, from the lower throat downwards, bright green, with the lower abdomen, vent, and under tail-coverts bright scarlet, bordered above with an abdominal patch of black, which descends slightly on each side of the scarlet patch, the lower feathers being black broadly tipped with scarlet; thighs brown; under wing-coverts and quill-lining black.

Total length $7\frac{1}{2}$ inches, culmen $\frac{7}{8}$, wing $4\frac{5}{8}$, tail $1\frac{7}{8}$, tarsus $1\frac{7}{8}$.

Since the above meagre description of a fine bird was in press, I have received a few additional remarks from Dr. Meyer, to whom I wrote a few days since, and who says of *Pitta forsteni*:—

“This species only occurs on the island of Celebes, and is represented in Borneo by *P. mülleri*, on Sangi Island by *P. sanghirana*, on Mindanao by *P. steerii*, and on other islands of the Philippine group (as well as on Mindanao) by *P. sordida*.

“All Pittas may be said to be rare birds everywhere, and are only met with singly or a pair at a time. I met with but one *Pitta* that was plentiful, viz. *P. rosenbergi*, on the island of Mysore, in the north of Geelvink Bay. Besides, the black-headed Pittas are still rarer than the red-bellied Pittas; and so it is also on the island of Celebes with *P. forsteni* in relation to *P. celebensis*. In the southern parts of Celebes I did not procure a single specimen of *P. forsteni*, as far as I remember, and also am not aware that

specimens collected by any one else have reached Europe from there ; whereas *P. celebensis* appeared to be less rare there than in the northern parts. Here I got specimens of *P. forsteni* in the Minahassa and in the district of Gorontalo.

“Pittas are shy birds, as I have said before ; but their flute-like cry once heard, the specimen can nearly always be got with patience and quietness ; imitating its voice, the bird can be called up till it is close to the hunter's gun. The rareness of the black-headed Pitta on Celebes is proved by the fact that its colours shelter it even less than the colours of *P. celebensis* shelter that species, or the bright blue shoulder-patches of *P. forsteni*, which always glitter on the ground, which it never quits. The colour of the iris is dark, the feet dusky, the bill black. It feeds on insects of all kinds. Its name in the Minhassa is ‘Mopo idiu,’ that is to say, ‘Green Mopo,’ ‘Mopo’ being the name for *P. celebensis*, the meaning of which word in the Alfuro language I have explained in my ‘Field-notes on the Birds of Celebes’ (‘Ibis,’ 1879, p. 126), where I also narrated the story which the natives attached to this bird.”



PITTA CONCINNA, *Gould.*

PITTA CONCINNA, Gould.

Elegant Pitta.

Brachyurus vigorsi, Bonap. Consp. Gen. Av. i. p. 255 (1850, nec Gould).

Pitta concinna, Gould, P. Z. S. 1857, p. 65.—Wallace, P. Z. S. 1863, p. 485.—Schlegel, Vog. van Nederl. Indië, pp. 12, 32, pl. iii. fig. 1 (1863).—Id. Mus. Pays-Bas, *Pitta*, p. 10 (1865).—Id. op. cit., *Revue Pitta*, p. 14 (1874).

Pitta mathildæ, J. & E. Verreaux, Rev. et Mag. de Zool. 1857, p. 303, pl. xi.

Brachyurus concinnus, Elliot, Monogr. Pittidæ, pl. x. (1863).—Id. Ibis, 1870, p. 416.

THIS species of *Pitta* was first published by me in 1857, when I described it from specimens obtained by Mr. A. R. Wallace in the island of Lombock. It appears that it also inhabits the island of Sumbawa, as specimens from the latter locality were contained in the Leiden Museum many years before I described the bird as new, and one of these specimens was wrongly identified by Bonaparte as *Pitta vigorsi*, figured by me in the 'Birds of Australia.' Professor Schlegel, however, in his list of the Pittas in the Leiden Museum, has corrected the error of Bonaparte, which an examination of the specimen described by the latter enabled him to do, and has placed the species in its correct position. In the supplementary list of the Leiden Pittas, Professor Schlegel records two specimens from the island of Flores; so that its range is now known to include the three islands of Flores, Lombock, and Sumbawa, to which it will probably be found to be confined.

The characters by which *P. concinna* may be distinguished are its small size and the tint of the brown on the head, which is much clearer than in *P. strepitans* and only extends as far as the occiput, where it is prolonged into a streak of bluish white.

I regret to say that nothing has been written respecting the habits of this bird; and I can only add that the name *concinna*, published by me, has a slight priority (only of a few days, according to Mr. Elliot) over the name *mathildæ*, given by MM. Verreaux in the same year.

The following is a copy of the original description:—

"Head, back of the neck, cheeks, chin, and stripe down the centre of the throat velvety black; from the nostrils over each eye a broad mark of deep buff, posterior to which is a narrower one of pale glaucous blue; back, tail, and wings dark grass-green; lesser wing-coverts and a band across the rump glossy verditer blue; primaries and secondaries black, the fourth, fifth, and sixth of the former crossed by a band of white near their base, and all the primaries tipped on the external web with olive grey; upper tail-coverts black; under surface delicate fawn-colour, becoming much paler where it meets the black of the cheeks and throat; centre of the abdomen black; vent and under tail-coverts fine scarlet; bill black; feet fleshy.

"Total length 6 inches, bill 1, wing 4, tail $1\frac{1}{2}$, tarsus $1\frac{3}{8}$."

The figures in the Plate, representing the two sexes about the natural size, are drawn from the typical specimens, still in my possession.



PITTA CAERULEITORQUES *Salvad.*

PITTA CÆRULEITORQUES.

Red-headed Pitta.

Pitta cæruleitorques, Salvad. Ann. Mus. Civic. Genov. ix. p. 53 (1876-77).—Rowley, Ornithological Miscellany, part viii. (1877).

IN an interesting communication made by Dr. Meyer to Mr. Dawson Rowley's 'Ornithological Miscellany,' that gentleman points out the distribution of the red-breasted *Pittæ* in the Malayan archipelago, and shows how each of the species, which I consider should be kept under the heading of *Erythropitta* in the present work, has its own separate area of distribution, however closely they may be allied as species. Thus *Pitta celebensis* is the species of Celebes, *P. paliceps* of Siao, *P. cæruleitorques* of Sangi (Sanghir), *P. erythrogastra* of the Philippines, *P. cyanonota* of Ternate, *P. rufiventris* of Batchian and Gilolo, and *P. mackloti* of Papua and its islands, as well as the northern part of Australia. Many other instances of a similar distribution could be brought forward.

Count Salvadori, in his original description of the present species, writes as follows:—"This species, and the *P. erythrogastra* of the Philippines, are the only two species of the subgenus *Erythropitta* which have a blue band on the neck; and *P. cæruleitorques* differs from the above-named bird principally in the more uniform red colour of the head, which becomes much brighter on the neck, by the absence of the two dull bands on the side of the crown, by the reddish-brown colour of the sides of the head and throat, by the blue colour of the breast being more extended crosswise, and separated from the red of the abdomen by a well-marked black band, and by the somewhat larger dimensions."

Dr. Meyer obtained several examples of the blue-ringed Pitta from Sangi, at Tabukan, on the north-east coast of the island, no difference being observable in the colour of the sexes; and I give the following extract from his remarks communicated to the 'Ornithological Miscellany':—

"This species inhabits the largest island of the Sangi group; and it is an interesting one, because it is more closely allied to *Pitta erythrogastra* from the Philippines, in the north, than to the two species from islands immediately to the south (viz. *Pitta paliceps* from Siao, and *Pitta celebensis* from Celebes), and therefore presents a good example of variation of species in consequence of separated insular habitat. Good examples for the same point of view are, amongst others, *Pitta cyanonota* from Ternate, and *Pitta rufiventris* from Halmahera, in their relation to the species from the neighbouring islands (New Guinea, Celebes, the Sangi, and Philippine Islands). *Pitta paliceps* on Siao is as slightly different from *Pitta celebensis* on Celebes as *Pitta cæruleitorques* on Sangi is from *Pitta erythrogastra* on the Philippines. That insular separation is a reason for such variations is not to be doubted, in my opinion; nevertheless we cannot examine this subject more closely at present. *Pitta celebensis*, for instance, does not show the least difference over the whole extent of the island of Celebes. My specimens from the neighbourhood of Makassar resemble exactly those from Manado (nearly the north and south points of this long island); whereas when we cross over to the closely neighbouring island of Siao, immediately a variation appears in *Pitta paliceps*. Whether this variation has specific value or not is of no importance at all upon this part of the question. Authors do not agree, and never will agree, at least for some time to come: one says it has, the other says it has not; but all see that a difference exists; and this is of value, notwithstanding its smallness, because it is a constant one. That insular separation does not always produce constant differences is known; and I only mention it here for this reason—that it refers to a closely allied species, *Pitta macklotii*. I got a large series of specimens on New Guinea in different places, viz. at Dore, Andei, Passim, Inwiorage, Rubi, and on the Elephant Mountains, and some on the island of Jobi in the north of Geelvink Bay. I first thought that the Jobi specimens differed by brighter colours in general, and noted this difference in my diary; but now, in the cabinet, I do not see the slightest difference in several of the New-Guinea specimens."

The following description is a translation of the original one given by Count Salvadori:—

Head above red, the latter colour perceptibly brighter towards the hind neck; sides of head and throat brownish red; a very broad patch of black on the lower throat; a band round the hind neck, another very

broad one on the breast, the latter succeeded by a band of black ; the wings, upper tail-coverts, and tail bluish lead-grey ; back, scapulars, and sides of breast olivaceous ; abdomen and under tail-coverts very bright red ; tips of the longer under tail-coverts blue ; primaries marked in the middle with a white spot ; a white spot near the bend of the wing ; bill and feet dusky.

Total length 6 inches, culmen 1·0, wing $4\frac{5}{8}$, tail $1\frac{1}{2}$, tarsus $\frac{5}{8}$.

I owe the opportunity of figuring this species to the kindness of two friends, Count Salvadori and Mr. George Dawson Rowley, both of whom lent me their specimens.



PITTA MASURENSIS, Schleg.

PITTA MAFORENSIS, *Schlegel*.

Mafoor-Island Pitta.

Pitta novæ guineæ mefoorana, Schlegel, Revue Coll. *Pitta* Mus. Pays-Bas, p. 8 (1874).—Meyer, in Dawson Rowley's 'Ornithological Miscellany,' pt. vii. p. 268 (1877).

THIS species was separated by Professor Schlegel in 1874 in his Review of the Pittas in the Leiden Museum under the trinomial title above quoted; and he apparently regards it as nothing but a race of *Pitta novæ guineæ*. In this conclusion I am unable to agree, as it seems to me to be a thoroughly well-marked species. It is nearly allied to the last-mentioned bird and to *Pitta rosenbergi*, but is distinct from both. It is of about the same size, and has the colour of the chest, breast, and nape of a fine glistening greenish white, as it exists in *P. novæ guineæ*, but more extended, the green of the chest blending into green and blue on the flanks.

Dr. Meyer did not get a *Pitta* on the island of Mafoor; but the Leiden Museum possesses four specimens, killed there in January and February 1869 by Von Rosenberg. Dr. Beccari also managed to procure some examples.

In describing the species, Professor Schlegel says that the Mafoor bird is similar to *P. novæ guineæ*, but has the tail-feathers more or less tipped with dirty green, the large upper tail-coverts black, with a fine blue edging, the smaller upper tail-coverts of a fine metallic whitish green, and the blue of the abdomen darker, the quills being without white spots. This constitutes, as far as I know, all that has been published respecting the present bird. The Plate represents a pair of these birds of the natural size. They form part of the rich collections made by Dr. Beccari in New Guinea and the islands of Geelvink Bay. They were kindly lent to me by Count Salvadori during his visit to this country; and to him I have once more to express my great appreciation of his kindness.

Total length $6\frac{1}{2}$ inches, wing $5\frac{1}{4}$, tail $1\frac{1}{3}$, tarsus $1\frac{3}{4}$.

I must apologize for the oversight by which the name *maforensis* instead of *mafoorana* was printed on the Plate, as before I had discovered the mistake the whole impression had been printed off; and I thought it best in this instance to keep the name at the head of this article to harmonize it with that of the Plate, though I regret the *lapsus calami* which caused the error.

I regret that no further information should have reached me respecting this beautiful species, which finds a near ally in *P. novæ guineæ*. In size it is much the same; but the green of the under surface is suffused with luminous glistening green.



PITTA CELEBENSIS, *Forst.*

PITTA CELEBENSIS, *Forst.*

Celebean Pitta.

- Pitta celebensis*, Müller & Schlegel, Verh. Nat. Geschied. Zool. Aves, p. 18. no. 16 (1839-44, ex Forster MS.).—Gray, Genera of Birds, i. p. 213 (1846).—Westerman, Bijdr. tot de Dierkunde, folio, i. p. 46, pl. iii. (1848-54).—Wallace, Ibis, 1860, p. 142.—Schlegel, Mus. Pays-Bas, *Pitta* p. 6 (1863).—Id. Vog. van Nederl. Indië, *Pitta*, pp. 17, 34, pl. iv. figs. 4, 5 (1863).—Wallace, Ibis, 1864, p. 105.—Gray, Hand-list of Birds, i. p. 296. no. 4377 (1869).—Schlegel, Revue *Pitta* Mus. Pays-Bas, p. 10 (1874).—Salvad. Ann. Mus. Civic. Genov. vii. p. 663 (1875).—Meyer in Rowley's Ornith. Misc. part viii. (1877).
Brachyurus celebensis, Bonap. Consp. Gen. Av. i. p. 253 (1850).—Elliot, Monogr. Pittidæ, pl. xvii. (1863).—Id. Ibis, 1870, p. 418.
Erythropitta celebensis, Bonap. Consp. Volucr. Anisod. p. 7 (1854); Walden, Trans. Zool. Soc. viii. p. 62 (1872).
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I HAVE already, in one of my other articles, spoken of the distribution of the red-breasted Pittas in the Malay archipelago, and I have quoted the remarks of Dr. Meyer on this subject; I therefore need only say that the present species is the representative of this section of the genus on the island of Celebes, to which it appears entirely restricted. It is true that, in his Review of the Pittas contained in the Leiden Museum, Professor Schlegel enumerates several examples from the island of Siao in the Sanghir archipelago; but these no doubt belong to the species since named *Pitta palliceps* by the late Dr. Brüggemann. Certain differences, indeed, seem to have struck Professor Schlegel at the time; for he says that in the birds from Siao the rufous colour of the head is paler than in examples from Celebes, and often replaces the black bordering the blue stripe on the head.

Mr. Wallace found the species scarce in Northern Celebes, which appears to be the only part of the island where it has yet been found. I may be mistaken in this, as the localities Modélido, Négri-lama, and Boné, mentioned in the list of specimens at Leiden, do not occur in any of the maps I have examined. The other places, however, Menado, Gorontalo, and Tondano are situated in the northern part of Celebes; and Dr. Beccari, although he collected at Buton, in the south-west corner of the island, only met with the *Pitta* at Kema, in the north. The presumption at least is, that, even if it is found all over the island, it is more abundant in the northern portion.

Count Salvadori mentions that the specimen shot by Dr. Beccari at Kema had the outermost of the smaller wing-coverts close to the bend of the wing marked with white—a feature not previously noted or figured in the plates of the species which have at present appeared.

Mr. Elliot, in his latest revision of the genus *Pitta* (Ibis, 1870, p. 418), gives the following diagnosis of the species, which I translate:—

Adult. Green: head rufous, with a vertical band of bluish; wings and tail blue; pectoral band cobalt-blue, the throat rufous. In addition to these characters the white spots on the quill-feathers and the scarlet breast are common to the other allied species.

The soft parts are noted by Mr. Wallace to be as follows in freshly-killed specimens:—"Bill blackish-horny; feet dusky lead-colour; iris pale olive."

The figures in the Plate are of the size of life, and are drawn from examples in my own collection.



PITTA RUBRINUCHA, Wall.

PITTA RUBRINUCHA, *Wall.*

Red-naped Pitta.

Pitta rubrinucha, Wallace, P. Z. S. 1862, p. 187.—Id. P. Z. S. 1863, p. 25.—Gray, Hand-list of Birds, i. p. 297. no. 4382 (1869).—Schlegel, Revue Coll. *Pitta* Mus. Pays-Bas, p. 12 (1874).—Salvad. Annali Mus. Civic. Genov. viii. p. 375 (1876).
Brachyurus rubrinucha, Elliot, Monograph of the Pittidæ, pl. xviii. (1863).—Id. Ibis, 1870, p. 418.

ALTHOUGH bearing a general resemblance to the other red-breasted species of the genus *Pitta*, the present bird possesses such a well-marked character in its red nape-spot, that it can be easily distinguished at a glance from all its allies. Another conspicuous and peculiar mark exists in the blue colour on the ear-coverts. It was discovered by Mr. Wallace in the Moluccan island of Bouru, where it has since been met with by the hunters of Mr. Bruijn, who sent four specimens to the museum at Genoa.

Professor Schlegel, in his Review of the Ant-thrushes contained in the Leiden Museum, records a single specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and one which we should almost suppose would require confirmation, when one thinks of the absolute manner in which these red-breasted Pittas are confined each to his own locality. This seems to be also Count Salvadori's opinion.

Nothing whatever has been written of the habits or mode of life of the red-naped Pitta, which still remains one of the rarest of the genus. I am indebted to Count Salvadori for the opportunity of figuring this scarce species, and I herewith return him my hearty thanks for the loan of the pair which are represented in the accompanying Plate, and which, I believe, are from the collection of the Genoa Museum. I add a short description.

General colour above olive-green, with a broad scarlet patch on the nape; head chestnut-brown, with a blue patch on the crown; sides of face and throat light reddish grey, the ear-coverts bluish; lower throat blackish brown, succeeded by a broad chest-band of pale blue, the rest of the under surface being scarlet; primaries black, with a white spot on two or three of them; bill brown; legs light grey.

The sexes are alike in plumage.

Total length 7 inches, bill $4\frac{3}{4}$, wing $1\frac{1}{8}$, tarsus $2\frac{1}{8}$.



PITTA NOVAE-GUINEAE, *Müll & Schleg.*

PITTA NOVÆ GUINEÆ, Müll. & Schleg.

New-Guinea Pitta.

Pitta novæ guineæ, Müll. & Schleg. Verh. Nat. Gesch. Ned. Ind., no. 21.

Brève à tête noire, Quoy et Gaim. (nec Cuv.) Voy. Astrol. pl. 8. fig. 3.

Pitta novæ guineæ, G. R. Gray, Proc. Zool. Soc. 1858, p. 175. sp. 39.

Brachyurus novæ guineæ, Bon. Cons. Av. vol. i. p. 256. sp. 24 (1850).

Brachyurus (*Melanopitta*, Bon.) *novæ guinæ*, Elliot, Mon. of the Pittidæ (1863).

Melanopitta novæ guineæ, Bon. Cons. Voluc. Anisodact. p. 7, no. 197 (1854).

[The above synonyms are taken from Mr. Elliot's 'Monograph of the Pittidæ.']

HOWEVER rare this *Pitta* might have been when Mr. Elliot wrote his 'Monograph,' it has since become very common, and there are but few collections of birds in which it is wanting. When the 'Astrolabe' visited New Guinea it was only known to come from one locality; since then it has been discovered in the Aru Islands, whence Mr. Wallace brought many examples, while other collectors have greatly added to our stores. One of the most striking features by which the present species may be distinguished from its congeners is the beautiful silvery white line which separates the black of the throat from the peculiar oil-green colour of the chest and flanks. In size it is about equal to *Pitta mackloti*, and rather like, in its general appearance, the splendid bird which bears the name of *rosenbergi*. As regards colour, but little difference occurs in the plumage of the sexes, while in size the male is a trifle larger than the female in all its admeasurements.

Independently of the mainland of New Guinea, where it was discovered by the naturalists of the 'Astrolabe,' and the Aru Islands, as before stated, Mr. Gray adds the island of Salawatti.

"The New-Guinea Pitta," says Mr. Elliot, "was discovered by Messrs Quoy and Gaimard during the first voyage of the 'Astrolabe;' and their type (from which I took my description) was labelled 'Triton Bay.' They state that it has also been killed on the Bay of Dorey, where, however, it is very rare. It was not considered by them as a distinct species, but merely supposed to be the *P. atricapilla* of Cuvier, from which it can readily be distinguished by the entire absence of blue on the rump, and by having a small white spot only on its primaries.

"It is a rare bird; and my plate of it was executed in Paris, under the direction of my friend Mons. J. P. Verreaux, from the type now contained in the Museum of the Jardin des Plantes."

Head and neck black; back and wings dark green; lesser wing-coverts light blue; primaries dark brown, a white spot in the centre of the fourth, fifth, and sixth; tail brownish green; breast light green, with metallic reflections; abdomen black; crissum and under tail-coverts deep red; bill dark brown; feet and tarsi very light brown.

Total length of male $6\frac{1}{2}$ inches, wing $3\frac{1}{2}$, tail $1\frac{3}{8}$, bill 1, tarsi $1\frac{1}{4}$.

Hab. New Guinea.

The figures in the accompanying Plate are of the size of life.



PITTA ROSENBERGII, Schleg.

PITTA ROSENBERGII, *Schlegel*.

Rosenberg's Pitta.

Pitta rosenbergii, Schlegel, Obs. Zool. v., Ned. Tijdschr. voor de Dierk. iv. p. 16, 1873.

IN the richness of its colouring and broad sweeping tints on the under surface *Pitta rosenbergii* will ever rank among the finest of this gorgeous group of birds. The nearest ally to it is the *Pitta novæ-guinæ*; but the differences which occur between them may be easily recognized in the figures of the accompanying Plates. In Rosenberg's Pitta the lively collar of silvery white on the lower part of the throat, so conspicuous in *P. novæ-guinæ*, is wanting; on the other hand, the blue colouring of the flanks is much richer. In size the two birds are about the same, as is also the black colouring of the head and green of the upper surface. Having made these remarks, I will now state all that is known of its history. But on this head I must necessarily be brief; for it is only of late that we have become acquainted with it—it having been first described by my friend Professor Schlegel in 1873, *loco suprâ citato*.

Dr. Meyer informs me that it is very restricted in its geographical distribution, and represents *P. novæ-guinæ* in the island of Mysore; where, as he remarks, it is a very interesting insular deviation from the mainland form.

The sexes are similar in their colouring, which may be described as follows:—

Crown of the head, nape, and throat black; back and upper surface generally brownish olive-green; the same colour also pervades the chest, where it borders on the black of the throat; this brownish green colouring of the chest gradually passes into deep blue on the flank; centre of the abdomen and the under tail-coverts rich scarlet; shoulders and a broad mark on the rump beautiful silvery green. Primaries and tail-feathers black; some of the former have a small white spot near their bases. Bill black; tarsi and toes fleshy brown.

Total length 7 inches; wing $4\frac{1}{4}$, tail $1\frac{1}{2}$, tarsus 2, bill $1\frac{1}{8}$.

Hab. Island of Mysore, in the north of Geelvink Bay.

The figures are of the size of life.



COLLOCALIA TERRESTRIS REINHA.

COLLOCALIA TERRÆ REGINÆ.

Queensland Edible Swift.

Cypselus terræ reginæ, Ramsay, P. Z. S. 1874, p. 601.

AUSTRALIA has long been known to possess true Swifts, Swallows, and Martins; but hitherto the genus *Collocalia*, of which numerous species inhabit the surrounding islands, has been conspicuous by its absence. Specimens of an Edible Swift were, indeed, procured on Dunk Island by the late Mr. John Macgillivray during the voyage of the 'Rattlesnake;' but it was not till two years ago that they became known as inhabitants of the continent of Australia. As might have been expected, the Dunk-Island birds are identical with the Australian; and, after careful comparison, I have decided on keeping this new Swiftlet distinct from *Collocalia spodiopygia* of Peale, to which it bears undoubted affinity. The addition of Australia as a habitat for the genus *Collocalia* is of great interest, as its range is decidedly peculiar, extending as it does over the different islands of Oceania, Malasia, India, and it even occurs in Mauritius.

For the acquisition of a specimen of this new Australian bird I am indebted to Mr. Waller, of Brisbane. In a short note this gentleman states:—"This Swallow was collected by Mr. Broadbent on the coast-range of Rockingham Bay. First seen at Dalrymple's Gap, in the morning they appeared to come from the north and returned again in the evening. Before rain, this bird assembles in large flocks, and skims over the ground with great rapidity. They were all leaving about the latter part of June."

The following is Mr. Ramsay's description, copied from the 'Proceedings of the Zoological Society,' where the name of *terræ reginæ* was first bestowed:—

"Whole of the upper surface, except the rump, very dark sooty brown tinged with metallic lustre, being of a darker brown on the outer webs and paler on the inner webs of the wing-feathers; across the rump a greyish-white band having a narrow line of dark brown down the shaft of each feather; whole of the under surface dull greyish brown, of a silky texture and somewhat glossy; under surface of wings and tail and the under tail-coverts of a darker tint, the basal half of all the feathers on the body nearly black; bill black; feet blackish brown; iris dark brown.

"Total length from 4 to 4·2 inches; bill from the nostril 0·1, from forehead 0·2, from angle of the mouth 0·45; wing from flexure 4·4; tail 2·1 to 2·4; tarsi 0·35.

"The sexes are alike in plumage and size. The texture of the plumage is remarkably soft, and to the touch resembles the fur of a Bat.

"This species frequents the north-east coast-ranges near Cardwell, Rockingham Bay, where it is tolerably plentiful, but very difficult to procure, from its small size and swift flight. Small flocks may be seen flying to and fro over the clearer parts of the lower spurs of the coast-ranges; and frequently the same troop returns to the same open ground day after day; towards evening others may be found sweeping over the tops of the scrubs and about precipitous sides of the rocky ridges, where they doubtless breed. I found several young or immature-plumaged birds; and none amongst those I obtained had the tail fully grown. I have never seen this species in any other part of Australia than near Rockingham Bay. It was observed in the neighbourhood of Cardwell during October 1873, and when I left in April 1874 was still numerous there. For the first knowledge of this and several other new and rare species I am indebted to Inspector Robert Johnstone, of the police force on the Herbert river near Cardwell, as well as for much valuable information on the natural history of that interesting region."

The figures in the accompanying Plate are rather under the size of life.



ÆGOTHELES WALLACHI, Gray.

W. Hart del et lith.

Mintern Bros. imp.

ÆGOTHELES WALLACII, *Gray*.

Wallace's Goatsucker.

- Ægotheles wallacii*, Gray, Proc. Zool. Soc. 1859, p. 154.—Id. Proc. Zool. Soc. 1861, p. 433.—Finsch, Neu-Guinea, p. 162 (1865).—Schlegel, Nederl. Tijdschr. Dierk. iii. p. 340 (1866).—Gray, Hand-list Birds, i. p. 55, no. 603 (1869).—Sclater, Proc. Zool. Soc. 1873, p. 696.—Meyer, Sitz. k. Akad. Wien, lxix. p. 75 (1874).—Salvad. Ann. Mus. Civic. Genov. x. p. 310 (1877).—Id. Proc. Zool. Soc. 1878, p. 94.—Id. Orn. Papuasie e delle Molucche, ii. p. 526 (1880).—Id. Report Voy. H.M.S. 'Challenger,' p. 77 (1882).—Meyer in Madarász, Zeitschr. ges. Orn. i. p. 278, pl. xvii. fig. 4 (1884).—Guillemard, Proc. Zool. Soc. 1885, p. 630.
- ? *Caprimulgus brachyurus*, Schl. Nederl. Tijdschr. Dierk. iii. p. 340 (1866, ex Rosenb. MSS.).—Rosenb. Nat. Tijdschr. Nederl. Ind. xxix. p. 143 (1867).—Id. Reis. naar Zuidoostereil. p. 37 (1867).
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THIS interesting Goatsucker was discovered by Mr. A. R. Wallace during his travels in the east, at Dorei in New Guinea, and the type specimen is in the British Museum. It has since been met with in the same locality by Mr. Bruijn's hunters, as well as on the Arfak Mountains by Dr. A. B. Meyer, and in Atam by Signor D'Albertis. It appears to represent in North-western New Guinea the Australian *Ægotheles novæ-hollandiæ*, and it is replaced in South-eastern New Guinea by *Æ. bennetti*. It differs from the latter, and consequently also from *Æ. novæ-hollandiæ*, in its dark coloration, and in having the fore part of the crown varied with rufous, and in exhibiting some whitish-red spots on the scapular feathers.

A Goatsucker from the Aru Islands has been described by Baron von Rosenberg as a distinct species under the name of *Caprimulgus brachyurus*. Count Salvadori, who has examined the type in the Leyden Museum, is of opinion that it is a young bird of the genus *Ægotheles*, with an imperfectly developed tail, probably referable to *Æ. wallacii*; but he has also seen a second specimen from the Aru Islands collected during the 'Challenger' expedition, and he believes that the Aru bird is probably distinct, by reason of its smaller dimensions and more minute vermiculations. We have examined the last-named specimen and find that it fully bears out Count Salvadori's opinion; but it will be better to wait for a larger series of specimens before venturing to separate the Aru bird specifically, as Goatsuckers vary so much in the intensity of their coloration.

Dr. Meyer has recently received a specimen from the same group of islands, where the bird is called by the natives "Tatar faffu." The iris was greyish brown and the feet dark flesh-colour. The egg, which is figured by Dr. Meyer, is cream-coloured, with scribblings of dusky greyish.

We do not give a detailed description of this species, the characters having been well pointed out above.

The Plate represents two adult birds of the natural size, the figures having been drawn from a specimen lent to us by Dr. Guillemard.

[R. B. S.]



PODARGUS OCELLATUS, Quoy et Gaim.

W. Hart del. et lith.

Mintern Bros. imp.

PODARGUS OCELLATUS, Quoy & Gaim.

Ocellated Goatsucker.

- Podargus ocellatus*, Quoy et Gaim. Voy. Astrol. i. p. 208, pl. 14 (1830).—Less. Compl. de Buffon, Ois. p. 435 (1838).—Gray, Gen. B. i. p. 45 (1846).—Bp. Consp. Av. i. p. 58 (1850).—Id. Parall. Cant. Fissir. Vol. Hianti e Nott. ovvero Insidenti, p. 8 (1857).—Scl. Journ. Linn. Soc. ii. p. 155 (1858).—Gray, Proc. Zool. Soc. 1858, pp. 170, 189.—Id. Cat. B. New Guin. pp. 17, 54 (1859).—Id. Proc. Zool. Soc. 1861, p. 433.—Rosenb. J. f. O. 1864, p. 117.—Finsch, Neu-Guinea, p. 162 (1865).—Schl. Nederl. Tijdschr. Dierk. iii. pp. 340, 341 (1866).—Rosenb. Reis naar Zuidoostereil. p. 36 (1867).—Gray, Hand-list of Birds, i. p. 54, no. 588 (1869).—Meyer, Sitz. k. Akad. der Wissensch. Wien, lxix. p. 209 (1874).—Salvad. Ann. Mus. Civ. Gen. ix. p. 23 (1876), x. p. 309 (1877).—D'Alb. et Salvad. op. cit. xiv. p. 54 (1879).—Salvad. Uccelli di Papuasias e delle Molucche, i. p. 518 (1880).
- Podargus superciliaris*, Gray, Proc. Zool. Soc. 1861, pp. 428, 433, pl. 42.—Finsch, Neu-Guinea, p. 162 (1865).—Schl. Nederl. Tijdschr. Dierk. iii. p. 341 (1866).—Gray, Hand-list of Birds, i. p. 51, no. 590 (1869).—Meyer, Sitz. k. Akad. Wissensch. Wien, lxix. p. 209 (1874).
- Podargus marmoratus*, Gould, B. Austr. Suppl. pl. 4.—Gray, Proc. Zool. Soc. 1859, p. 154.—Id. op. cit. 1861, p. 433.—Finsch, Neu-Guinea, p. 162 (1865).—Schl. Nederl. Tijdschr. Dierk. iii. p. 341 (1866).—Gray, Hand-list of Birds, i. p. 54, no. 589 (1869).—Meyer, Sitz. k. Akad. Wissensch. Wien, lxix. p. 209 (1874).—Ramsay, Proc. Linn. Soc. N. S. Wales, iii. p. 264 (1878), iv. p. 97 (1879).—Salvad. Ibis, 1879, p. 322.
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It is so difficult to describe in words the exact differences between the plumage of the various species of Goatsuckers, that we do not attempt to give a detailed description of the present species. Its nearest ally is probably *Podargus papuensis*, from which it is easily recognized by its diminutive size, as it is not half the bulk of the former bird.

It has been found in all the parts of New Guinea yet visited by naturalists, and it has also occurred in the islands of the Bay of Geelvink, having been procured in Jobi by Dr. Meyer, and by Dr. Beccari in Miosnom. Mr. Wallace met with the species in Waigiou and also in the Aru Islands, where Baron von Rosenberg and Dr. Beccari likewise obtained specimens. During his explorations in South-eastern New Guinea, Signor D'Albertis found the species near Naiabui and also on the Fly River. Mr. H. O. Forbes has recently obtained several specimens in the Sogeri district of the Astrolabe Range of mountains in the interior of South-eastern New Guinea.

A full account of the variation in plumage in the present species will be found in Count Salvadori's 'Uccelli di Papuasias;' and from the series sent by Mr. Forbes it is evident that there are two distinct phases of plumage, one thickly mottled with white, and the other more uniform rufous-brown. Apparently the latter are the female birds; and this assumption is confirmed by the specimens in the British Museum, where several individuals are emerging from the uniform rufous stage into that of the white-spotted dress of the adult male. On comparing examples from Northern Australia with others from New Guinea, we fail to find any differences to warrant their specific separation, and we have therefore unhesitatingly added *Podargus marmoratus* of Gould as a synonym of *P. ocellatus*.

Baron von Rosenberg states that the "Gongaboel," as it is called by the natives, is the least rare of the Goatsuckers found on the Aru Islands, where they were seen in some numbers at a little distance from Dobbo, in a small wood composed of low shrubs, above which towered some giant *Casuarinas*, and where some open bare spaces alternated with marshy spots covered with loose grass. According to the same author, the "Gongaboel" is a strictly nocturnal bird, which sleeps during the daytime in the hole of a tree or perched upon some large branch of the *Casuarina*, in which case they are always seated lengthwise and not across the bough. They feed on *Phalænæ*, *Phasmæ*, &c., which they capture on the wing.

Our illustration represents the adult male of this species of the natural size, and the figure is drawn from a specimen procured by Mr. H. O. Forbes in the Astrolabe Mountains. If Baron von Rosenberg's note as to the way in which the bird sits is correct, then the perching attitude in which our artist, Mr. Hart, has represented the species must be wrong; but he has only followed the traditions of the 'Birds of Australia,' and we suppose that the late Mr. Gould must have seen many *Podargi* at rest on a tree.

[R. B. S.]



MICRODYNAMIS PARVA.

MICRODYNAMIS PARVA.

Dwarf Koel.

Eudynamis parva, Salvad. Ann. Mus. Civic. Genov. vii. p. 986 (1875).

Microdynamis parva, Salvad. Ann. Mus. Civic. Genov. xiii. p. 461 (1878).—Id. Orn. Papuasie e delle Molucche, i. p. 371 (1880).

Rhamphomantis rollesi, Ramsay, Proc. Linn. Soc. N. S. Wales, viii. p. 24 (1884).—Salvad. Ibis, 1884, p. 354.

WE regret greatly that we have not been able to obtain a specimen of the adult male of this very interesting species of Cuckoo, but recognizing the importance of figuring in the present work as many peculiar Papuan genera as possible, we have deemed it better to figure the immature birds than to omit the species altogether.

The male has the head glossy black, and the general aspect of the bird, as well as the colour of its plumage, proclaims its relationship with the Koels or Black Cuckoos of the genus *Eudynamis*. Its short curved bill, however, distinguishes it from the typical Koels, while its small size is a striking peculiarity.

The history of *Microdynamis* is somewhat involved, for the original specimen was sent by Dr. Beccari, along with a number of others, from the island of Tidore in the Moluccas; but with the consignment were one or two New Guinea species, which led Count Salvadori to suspect that the type of *Microdynamis parva* might also have come from New Guinea rather than from Tidore. In this surmise we expect him to be correct, as there can be little doubt that the specimens figured in our Plate are of the same species as the bird described by Count Salvadori. There is no question also that they are the same as the *Rhamphomantis rollesi* described by Mr. Ramsay from Mount Astrolabe. Although closely allied to, and in appearance much resembling, *Rhamphomantis megarhynchus*, the latter has a differently formed bill, and belongs to another section of the family *Cuculidæ*.

Mr. H. O. Forbes has procured two specimens in the Sogeri district of the Astrolabe Mountains, viz. a female (which we presume to be adult) and a young bird, of which the following are descriptions:—

Adult female. General colour above brown, glossed with greenish bronze, with indistinct traces of rufous margins to the feathers; wing-coverts like the back, but a little more rufous, with the rufous margins more pronounced; bastard-wing dusky brown, edged with rufous; primary-coverts and quills brown, edged with rufous and glossed with greenish bronze, especially on the secondaries; upper tail-coverts and tail-feathers brown, glossed with greenish bronze and edged with rufous, the outer feathers slightly freckled with rufous on the inner web; crown of head like the back, and spotted with rufous, with a band of glossy black across the nape; lores dusky; below the eye a streak of white from the base of the bill across the ear-coverts, which are otherwise like the crown; cheeks black, forming a broad band bordering the throat, which is tawny rufous; remainder of under surface of body ashy brown, washed with rufous, with faint indications of dusky cross bars; thighs dusky brown; under tail-coverts pale ashy, washed with rufous and faintly barred with dusky; under wing-coverts and axillaries pale rufous, the latter with indistinct dusky bars; quills below dusky, rufous on the inner edge: “bill blue-black; legs and feet lavender-blue; iris with a red ring” (*H. O. F.*). Total length 7·2 inches, culmen 0·65, wing 3·85, tail 3·4, tarsus 0·7.

The young bird differs in having scarcely any black on the nape or cheeks; the upper surface is more distinctly washed with rufous, especially on the head, which is also plainly barred with dusky; the wings are more rufous, and the mottlings on the inner webs of the tail-feathers are more marked; the throat is ashy, with faint dusky cross bars.

The type specimen, described by Count Salvadori, is probably an adult male, and has the whole of the head and hind neck black. Mr. Ramsay's description also agrees with this; but in his account of the female, which appears to be immature, there seem to be some misprints, as we cannot understand the description as it stands.

The figures in the Plate represent the female and young bird of the natural size; they are drawn from the specimens obtained by Mr. Forbes, and described above.

[R. B. S.]



CALLIECHTHRUS LEUCOLOPHUS.

CALLIECHTHRUS LEUCOLOPHUS.

White-crowned Black Cuckoo.

- Cuculus leucolophus*, S. Müll. Verh. Land- en Volkenk. p. 22, note, p. 233 (1839-44).—Schl. Handl. Dierk. i. p. 204, pl. iii. fig. 33 (1857).—Gray, Proc. Zool. Soc. 1858, p. 195.—Id. Cat. Mamm. etc. New Guinea, pp. 44, 60 (1859).—Id. Proc. Zool. Soc. 1861, p. 437.—Schl. Mus. Pays-Bas, *Cuculi*, p. 16 (1864).—Gray, Hand-list Birds, ii. p. 216, no. 9012 (1880).—Beccari, Ann. Mus. Civic. Genov. vii. p. 715 (1875).—Id. Ibis, 1876, p. 253.
- Simotes albivertex*, Blyth, Journ. As. Soc. xv. pp. 15, 283 (1846).—Id. Cat. B. As. Soc. Mus. p. 75 (1849).
- Cuculus albivertex*, Gray, Gen. B. iii. App. p. 23 (1849).
- Symotes leucolophus*, Blyth, Cat. B. As. Soc. Mus. p. xix (1852).
- Hierococcyx leucolophus*, Bonap. Consp. Av. i. p. 104 (1850).—Id. Consp. Volucr. Zygod. p. 7 (1854).—Selater, Proc. Linn. Soc. ii. p. 166 (1858).—Rosenb. J. f. O. 1864, p. 117.
- Calliechthrus leucolophus*, Cab. & Heine, Mus. Hein. iv. p. 31 (1862).—Salvad. Atti R. Accad. Torin. xiii. p. 313 (1878).—Id. Ann. Mus. Civic. Genov. xiii. p. 461 (1878).—D'Albert. & Salvad. op. cit. xiv. p. 43 (1879).—Id. in D'Albert. New Guinea, ii. p. 405 (1880).—Salvad. Orn. Papuasie e delle Molucche, i. p. 358 (1880).
- Eudynamis leucolophus*, Finsch, Neu-Guinea, p. 159 (1865).

THIS is a peculiar species of Cuckoo, having the black coloration of a Koel (*Eudynamis*), but with the nostrils of a true Cuckoo (*Cuculus*). Its bill, however, is abnormally broad, and it forms an interesting link between the two genera above mentioned.

It was originally discovered at Lobo in New Guinea by the well-known traveller Solomon Müller, and in the north-western portion of the same island it has been met with at Mum by Dr. Meyer, at Andei by Baron von Rosenberg, and at Warbusi by Dr. Beccari. The latter naturalist says that it is one of the rarest of birds in the north-western portion of New Guinea. Mr. Bruijn has received it from Salwati, and in the south-eastern part of New Guinea Signor D'Albertis met with it on the Fly River, and Mr. Forbes has procured specimens in the Astrolabe Mountains, at Moroka (alt. 5000 feet), and in the Sogeri district at a height of 2000 feet.

So far as is known, the present species is only found in New Guinea and Salwati. Dr. Finsch gives Mysol as a habitat, but apparently in error, as no specimens from this locality are in the Leiden Museum. The late Mr. Blyth described the species as from Borneo; but he afterwards corrected this, and stated that it was from "an islet off the coast of Waigiu," where, however, no recent traveller has obtained it. There is at the same time no improbability in the occurrence of the species in either of the above-mentioned islands.

The following is a description of the pair of birds procured by Mr. H. O. Forbes:—

Adult. General colour above glossy blue-black; quills and tail black, with a gloss of blue-black externally; a broad line of white feathers along the centre of the crown to the nape; sides of face and under surface of body black, the breast and abdomen more ashy, the long under tail-coverts barred near the end and tipped with white; under wing-coverts black, with a few white bars: "bill black; feet blackish lead-colour; iris chestnut-brown" (*D'Albertis*). Total length 12·5 inches, culmen 1·25, breadth at gape 0·55, wing 6·6, tail 6·0, tarsus 0·85.

Young. Differs from the adult in being more dingy black, and in having white bars on the breast, under tail-coverts, and under wing-coverts, and a white tip to the tail-feathers. Total length 12 inches, culmen 1·1, wing 6·3, tail 5·8, tarsus 0·85.

The figures in the Plate represent an adult and young of this curious Cuckoo, of about the natural size; they are drawn from the above-mentioned specimens collected by Mr. Forbes.

[R. B. S.]



CHALCITES MEYERI.

CHALCITES MEYERI.

Meyer's Golden Cuckoo.

Chrysococcyx splendidus, Meyer, Sitz. k. Akad. der Wissenschaften zu Wien, lxix. p. 81 (1874).

Chrysococcyx meyeri, Salvad. Ann. Mus. Civic. Genova, vii. pp. 82, 762 (1875).

Lamprococcyx meyerii, Salvad. Ann. Mus. Civic. Genova, vii. p. 912 (1875).

THE little Golden Cuckoos form a natural section of the *Cuculidæ*, and are found all over Africa, India, the Malayan archipelago, Australia, and New Zealand. The African species are certainly the most brilliant; and none of the eastern ones can approach the Emerald Cuckoo (*Chalcites smaragdineus*) for beauty of plumage. In the plate I have endeavoured to illustrate a very common scene in the life of the Australian Golden Cuckoos; and I have no doubt that this New-Guinea species is parasitic on some of the small Warblers which are found in the same country, such as the *Mahurus alboscapulatus*, which is the species I have ventured to introduce into my Plate. Dr. Buller, in the 'Birds of New Zealand,' gives a very interesting account of the little Cuckoo of that country (*Chalcites lucidus*) and its breeding-habits; and other notes on these birds will be found in my own and other authors' works.

The peculiar fiery bronze colour of the present species is one of its special characteristics. It was discovered by Dr. Meyer in the Arfak Mountains; and, as the latter gentleman observes, it "has the same brilliant gloss as the African *Chrysococcyx klaasii*, while the other known Golden Cuckoos of the east are not so entirely metallic. It is, moreover, distinguished from the other known species by the absence of any grey or white over the eye and on the cheeks, but is especially remarkable for the fine rust-brown colour of the wings, which in some degree call to mind the 'rufous tint of the upper surface' of *Chrysococcyx russata* of Gould."

Dr. Meyer named this bird *C. splendidus*; but as that title had already been applied by the late Mr. Gray to a South-African species, Count Salvadori very properly changed it to *C. meyeri*, one of the best and most appropriate names which could have been selected, in my opinion, in acknowledgment of Dr. Meyer's services to science in his celebrated voyages to the East. I should have followed Salvadori in calling this species a *Chrysococcyx*; but having placed all the Golden Cuckoos in my previous works under the genus *Chalcites*, I am obliged, for the sake of uniformity, to relegate this species to the same genus.

The following is a translation of Meyer's original description:—

"Head, cheeks, neck, back, wing-coverts, uropygium, and upper tail-coverts splendidly metallic green and copper-red; only behind the eyes, on the sides of the neck, a large white patch; chin, throat, breast, belly, and under tail-coverts with bands just as brilliant as the upper parts; under wing-coverts also striped, but the stripes brownish grey; wings on the upperside, at the base and at the ends blackish, in the middle reddish brown, and more vividly coloured on the outer webs than on the inner; underside of the wing at the ends grey, elsewhere light reddish brown; upperside of the tail, the two middle rectrices metallic green and copper-coloured, but not as brilliant as the upperside of the body; the other rectrices metallic only on the outer webs, the outermost very feeble, inner webs blackish with a white patch at the end; the outermost rectrice bears on the inner web, on a black ground, five white spots, on the outer web six, the last very narrow; underside of the tail greyish black, with whitish tips, the outermost rectrices on the inner web black, with five white spots, on the outer web lighter, with six white spots.

Total length 160 millims.; bill from the front 12, wings 91, tail 70.

The Plate represents, of the natural size, the type specimen of this species, kindly lent to me by my friend Dr. Meyer.



NESOCENTOR MILO.

Solomon-Islands Lark-heeled Cuckoo.

- Centropus milo*, Gould, Proc. Zool. Soc. 1856, p. 136.—Gray, Cat. B. Tropical Isl. Pacific Ocean, p. 34 (1859).
—Slater, Proc. Zool. Soc. 1869, p. 124.—Gray, Hand-l. B. ii. p. 213, no. 8974 (1870).—Ramsay, Proc. Linn. Soc. N. S. Wales, iv. p. 69 (1879).
Nesocentor milo, Cab. & Heine, Mus. Hein. iv. p. 120 (1862).—Salvad. Ann. Mus. Civic. Genov. xiii. p. 463 (1878).—Id. Orn. Papuasias e delle Molucche, i. p. 385 (1880).—Grant, Proc. Zool. Soc. 1888, p. 191.
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THE genus *Nesocentor* was founded in 1862 by Drs. Cabanis and Heine for the reception of several Lark-heeled Cuckoos from the Austro-Malayan Subregion; but apart from their sombre style of coloration, we can see no reason for separating these birds from the genus *Centropus*, though in the present instance we have adopted the nomenclature of Count Salvadori, the leading authority on Papuan ornithology.

The type specimen of the present species was discovered by the late John Macgillivray on the island of Guadalcanar, where it has since been met with by Mr. Woodford and other travellers. The typical example is not quite adult, and was described by Count Salvadori in his work on the birds of New Guinea. He appears afterwards to have entertained some doubt as to the specimen described by him in England having been really the type; and on requesting Dr. Slater to re-examine the specimen, he was assured by the latter gentleman that it did not exist in the Museum. How this mistake arose we cannot say, and we have no immediate recollection of a visit from Dr. Slater to examine the specimen in question; it may have been temporarily mislaid during the removal of the Natural History collections down to South Kensington, but we are happy to say that it is quite safe in the national collection.

As far as is known, the present species is only found in the island of Guadalcanar, in the Solomon group, where it replaces the smaller *N. ateralbus* of New Ireland, which is a violet-black bird with a white head. The latter is also said to inhabit the Solomon Islands on the faith of a collection sent by Mr. Krefft to Dr. Slater in 1871. So many birds in this collection really came from New Ireland, and not from the Solomons, that we may fairly suppose that the locality for *N. ateralbus* is wrongly recorded.

In *N. milo* the adult male is black, sides of the body greenish black with a steel-green gloss; the head, neck, mantle, throat, and breast creamy white; the abdomen black. Total length 28 inches, culmen 2·3, wing 10·1, tail 13·5, tarsus 2·65. The young is rufous streaked with black, and somewhat resembles the adults of other Lark-heels.

The figures in the Plate are taken from an adult male and a young female shot on Guadalcanar by Lieut. Reginald Tupper, R.N., and presented by him to the British Museum. He says that the iris was yellow or orange. Mr. Woodford gives the iris as red, and the bill and feet black, in an adult male from Aola. Another adult male had a brown iris and grey feet, while in an adult female and an immature bird the iris was dark grey and brown respectively.

[R. B. S.]



CEYX SOLITARIA,

CEYX SOLITARIA.

Solitary Kingfisher.

- Ceyx meninting*, Less. Voy. Coquille, Zool. i. p. 691 (1826).—Cuv. Règne An. i. p. 444 (1829).—Less. Traité, p. 241 (1831).—Pucher. Rev. et Mag. 1861, p. 345.
- Ceyx solitaria*, Temm. Pl. Col. 595. fig. 2 (1836).—Gray, P. Z. S. 1858, p. 172; 1859, p. 155; 1861, p. 433.—Sharpe, P. Z. S. 1868, p. 271.—Id. Monogr. Alced. pl. 38 (1868).—Salvad. Atti R. Accad. Torino, iv. p. 474 (1869).—Gray, Handl. B. i. p. 95 (1869).—Salvad. Ann. Mus. Civ. Genoa, vii. p. 765 (1875).
- Alcyone solitaria*, Gray, Gen. B. i. p. 82 (1847).—Bp. Consp. i. p. 158 (1850).—Reich. Handb. Alced. p. 7, taf. cccxcviii. fig. 3067 (1851).—Bp. Consp. Vol. Anis. p. 10, sp. 358 (1854).—Rosenb. J. f. O. 1864, p. 118.
- Alcedo solitaria*, Schl. M. P. B. Alcedines, p. 17 (1863).—Id. Voy. Nederl. Ind. Alced. pp. 12, 48, pl. 3. fig. 5 (1864).—Id. Revue Alced. p. 9 (1874).
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THIS little three-toed Kingfisher is an inhabitant of New Guinea and the neighbouring islands. The original type came from the Bay of Lobo; and the Leiden Museum has specimens from Sorong, Dorey, and Andai, collected by the late Dr. Bernstein and by Von Rosenberg. In the island of Salwatty, Bernstein collected examples at Kalwal and Sailolo; and it has been sent from the island of Batanta by Von Rosenberg: in the last-named locality Dr. Beccari also met with it. Mr. Hoedt is our authority for the occurrence of the bird in Mysol, five individuals being in the Leiden Museum from Waaigama and Kasim. In his original 'Catalogue of the Kingfishers of the Leiden Museum,' Professor Schlegel recorded a specimen from Ceram; but Mr. Wallace at the time doubted the occurrence of the species in that island, and it now seems that the specimen in question was a Mysol one. Lastly, it occurs in the Aru Islands, whence we saw a large series in the collection recently formed there by Mr. Cockerell. Von Rosenberg's localities are Wokam and Wonoumbai. Mr. Cockerell is likewise our authority for the occurrence of the present species in Australia, as specimens were in his last collection from Cape York, and he assures me that Mr. Jardine had obtained them in the neighbourhood of Somerset. Beyond this, I have never in all my experience heard of the species nor seen a single example from the Australian continent.

All that is at present written concerning its economy is contained in the following brief note, communicated by Mr. Wallace to Mr. Sharpe's 'Monograph.' He observes that "the stomachs of those he killed contained the remains of water-beetles and other insects."

The present species is distinguished first of all by having only three toes, a peculiarity of the genera *Ceyx* and *Alcyone*; and from all the members of the latter it differs by its black bill and yellow belly.

In the Plate the bird is represented of the natural size, drawn from an Aru-Island specimen in my collection.



CEYX . . GENTIANA, *Tristram.*

CEYX GENTIANA, *Tristram*.

Gentian Kingfisher.

Ceyx gentiana, Tristram, Ibis, 1879, p. 438, pl. xi.—Salvad. Orn. Papuasie e delle Molucche, i. p. 423 (1880).

CANON TRISTRAM has kindly lent us the type specimen of this lovely Kingfisher, which was discovered by Lieut. Richards in Maikara Harbour, in the island of San Christoval, one of the Solomon group. The original specimen is in the collection of Canon Tristram, who pointed out the characters of the species in 'The Ibis' (*l. c.*). The plate by Mr. Smit, accompanying his paper, gives a poor representation of the species, the colouring of the bird being quite wrong in tint, and the long scapulars being left out altogether. The species is, however, a very distinct one, the only other *Ceyx* with a black bill being *C. solitaria*, which is yellow below.

The following is a description of the typical specimen:—

Adult female (type of species). Mantle and scapulars black, washed with purplish blue, the feathers being mesially streaked with dark cobalt; entire back, rump, and upper tail-coverts bright silvery greenish cobalt, a little more purplish on the latter; lesser, median, and inner greater coverts black, tipped with purplish blue, with a narrow mesial line of cobalt; remainder of the greater coverts, bastard-wing, primary-coverts, and quills black, slightly shaded with purplish blue externally; tail-feathers black, edged with purplish blue; crown of head black, all the feathers tipped with purplish blue, each feather with a central line of brighter cobalt; the spots thicker on the nape and hind neck, which appear almost entirely purplish blue; lores and base of forehead black, with a white loreal spot; feathers round eye, ear-coverts, and cheeks black, the feathers mesially streaked with purplish blue; throat and under surface of body white, as also a longitudinal patch on the sides of the neck; the upper breast with a patch of black feathers washed with blue; flanks with black streaks; thighs blackish; under tail-coverts white, tipped with purplish blue; under wing-coverts and axillaries white, with a black bar across the former; quills below dusky, white along the edge of the inner web: "bill black; feet flesh-colour; iris bluish black" (*Richards*). Total length 5·5 inches, culmen 1·55, wing 2·55, tail 1·1, tarsus 0·45.

The Plate illustrates the species, of the natural size, in two positions. The figures are drawn from the specimen lent to us by Canon Tristram.

[R. B. S.]



TANYSIPTERA CAROLINÆ, Schl.

TANYSIPTERA CAROLINÆ, *Schlegel*.

Blue-breasted Tanysiptera.

Tanysiptera carolinæ, Schl. N. T. D. iv. p. 13 (1873, ex Von Rosenb. MS.).—Id. Mus. P.-B. Revue *Alcedines*, p. 42 (1874).—Von Rosenb. Reist. Geelvinkbaai, p. 137, pl. 14. fig. 1 (1875).

No one can mistake this splendid Kingfisher for any species previously described; for it differs conspicuously from all the other long-tailed *Tanysipteræ*. Of the genus *Tanysiptera* Mr. Sharpe admits in his 'Monograph' twelve species; and this is the only new one which has been discovered since he completed his labours on the group. Of the twelve species enumerated by him, ten have white breasts, while *T. nympha* (from New Guinea) and *T. sylvia* (from North-east Australia) have the breasts vermilion and cinnamon-colour respectively. It needs, therefore, no more than a glance at the blue under surface of the present bird to see that in this respect it is not approached by any other member of the genus; and one cannot but congratulate Baron von Rosenberg on his discovery of such a fine novelty.

The following is the account given by Professor Schlegel in his description of the bird:—

"This new species was discovered by M. von Rosenberg in the island of Méfoor, situated in the great Bay of Geelvink, and is distinguished at a glance from all the other species known up to the present day by the under surface being of the same deep blue as the upper, instead of being white or reddish. It will be sufficient to point out the following facts to give an idea of this beautiful bird.

"Size, form, beak, and feet as in *Tanysiptera dea*.

"*Male and female adult*.—General colour a bluish violet, passing to purple cobalt on the upper part of the head, to blackish on the quills and under surface of the wings, and to pure white on the rump and anal region; tail-coverts and tail white, but the contracted part of the tail-feathers blue; this part is very narrow and constantly with the webs almost totally worn; beak of a lively red.

"*Young of both sexes*.—Bill blackish; upper parts of the bird with the sides of the head and the lower surface of the wings coloured as in the adult; lower parts clear rufous, varied with blackish excepting on the chin and the middle of the throat; rump and upper tail-coverts pure white more or less washed with rufous, with blackish streaks; under tail-coverts white; tail-feathers white for the length of their shafts, the rest pale black passing on the upper surface to more or less dark blue; the two centre feathers are but slightly elongated, a little contracted, but with very distinctly indicated spatules. Wing from 3" 10" to 4" 2", centre tail-feathers 6" to 7" 3", bill from front 7". It is a noteworthy fact that M. von Rosenberg does not appear to have met with *Tanysipteræ*, during his voyage to the Geelvink Islands, in Méosnoum, or in Jobie."

Bill, in adult, fine red; feet purplish brown.

My Plate is drawn from a fine specimen sent to me in exchange from the Leiden Museum; and the bird is represented of about the natural size.



TANYPTERA NYMPHA, G.R. Gray.

TANYSIPTERA NYMPHA, *G. R. Gray.*

Red-breasted Tanysiptera.

- Tanysiptera nympha*, Gray, Ann. & Mag. Nat. Hist. 1841, p. 237.—Id. Gen. B. i. p. 78 (1846).—Id. Cat. Fissirostres Brit. Mus. p. 59 (1848).—Bp. Consp. Gen. Av. i. p. 157 (1850).—Gray, P. Z. S. 1860, p. 347.—Wallace, P. Z. S. 1862, p. 165, 1863, p. 24.—Schl. Nederl. Tijdschr. Dierk. ii. p. 250 (1866).—Sharpe, P. Z. S. 1869, p. 631.—Id. Monogr. Alced. p. 269, pl. civ. (1869).—Sclater, P. Z. S. 1873, p. 697.—Schl. Mus. Pays-Bas, Alced. Revue, p. 41 (1874).—Salvad. Ann. Mus. Civic. Genov. x. p. 127 (1877).
- Dacelo dea*, pt., Schl. Mus. Pays-Bas, Alced. p. 43 (1863).—Id. Vog. Nederl. Ind. Alced. pp. 33, 62 (1864).
- Alcedo dea*, Martens, J. f. O. 1864, p. 18.

THE first specimen of this beautiful Kingfisher, described nearly thirty years ago from a native skin, still exists in the British Museum with the wings of a *Halcyon* attached to it. The majority of skins which reach us even to this day are prepared by the native collectors, and arrive in a flat state, without wings. The first person who appears to have obtained a perfect skin was Mr. Wallace, who, in 1869, contributed the following note to Mr. Bowdler Sharpe's 'Monograph.' He writes:—"This rare species was obtained by my assistant, Mr. Allen, in the interior of the north-west peninsula of New Guinea; and the single specimen he obtained is, I believe, the only complete and authentic one in Europe. New Guinea is the only island which possesses more than two species of this genus, and may therefore be looked upon as its metropolis, and as more likely than any other part of the world to produce new forms of Kingfishers." Since Mr. Wallace's 'Voyage' one or two mutilated skins have been seen in this country. It appears to be entirely confined to North-western New Guinea; and the first idea, that it was a Philippine bird, is now admitted on all sides to have been a palpable mistake. The Leiden Museum has received a single specimen from Sorong; and D'Albertis procured a couple of individuals during his stay in North-west New Guinea. Beccari also met with it, and observes:—"Of *Tanysiptera nympha* I could only get one specimen. It is not very rare among the mangroves near Ramoi, and in the low places surrounding it. On several occasions it was met with by my hunters without their being able to kill it. It is wanting near Dorey, but reappears at Rubi, in the south of the Bay of Geelvink, a locality which seems interesting, and which I was sorry not to have visited, because several species which are only known from Salvatti and Sorong are found there, among others *Seleucides alba*."

The present species is distinguished at once from all the other *Tanysipteræ* by its red rump and under surface. I give the following description from Mr. Sharpe's 'Monograph.'

Head rich ultramarine, inclining to cobalt on the nape; ear-coverts and upper part of the back and scapulars jet-black; lower part of the back, rump, and upper tail-coverts rich vermilion; wing-coverts black, edged with ultramarine, the innermost ones rich cobalt; quills black, the inner web light rufous from the base, the outer web very narrowly washed with blue; tail-feathers deep blue, the interior ones tipped with white, the two middle tail-feathers rich blue, the spatula long and white, with a faint blush of rose; entire under surface rich vermilion, a little paler on the abdomen; bill and feet sealing-wax-red; eyes black. Total length 11 inches, of bill from front 1·2, from gape 1·7, wing 3·6, tail 2·8, middle rectrices 0·6, tarsus 0·3, middle toe 0·6, hind toe 0·2.

The figure in the Plate is life-sized, and is drawn from one of the specimens obtained by Signor D'Albertis, and I have been indebted for the loan of it to Dr. Sclater, through whose hands D'Albertis's collection passed.



TANYPTERA DANAI, Sharpe.

TANYSIPTERA DANAE, *Sharpe*.

Crimson-and-brown Kingfisher.

Tanysiptera nympha juv., Ramsay, Proc. Linn. Soc. N. S. Wales, iv. p. 4 (1879).

Tanysiptera danae, Sharpe, Ann. & Mag. Nat. Hist. fifth series, vol. vi. p. 231 (1880).

I AM not surprised that my friend Mr. E. P. Ramsay, when he first received a specimen of this bird, took it to be the young of the beautiful *Tanysiptera nympha*; and had I seen but one example, I believe I should have done the same. In the collection, however, which was sent by Mr. Charles Hunstein to this country there were at least twenty specimens, and both old and young birds were represented in plenty, and Mr. Sharpe was no doubt right in considering it to be a new species.

The home of this beautiful bird is the interior of South-eastern New Guinea; and here it represents the *Tanysiptera nympha*, which inhabits the north-western portion of the island. It is somewhat allied to the last-named bird, having the under surface of the body crimson, as also the lower back and rump, characters which are also possessed by *T. nympha*. It differs, however, in having the head and back brown instead of black, and by the rufous-brown colour of the side face.

We owe the discovery of this species to the energy of a young German naturalist, Mr. Charles Hunstein, who has been collecting in South-eastern New Guinea, round East Cape, Milne Bay, and the adjacent parts, where he discovered likewise the wonderful new Kingfisher, named by Mr. Sharpe *Clytoceyx rex*, and figured in the present work.

We know nothing of the habits of this new *Tanysiptera*; but there is no reason to suppose that they would differ from those of its congeners. The measurements of the adult are as follows, according to Mr. Sharpe:—

Total length 10·5 inches, culmen 1·25, wing 3·45, tail 6·4, tarsus 0·6.

On the arrival of the specimens at the British Museum, Mr. Sharpe kindly showed them to me; and I was thus able to draw the accompanying Plate from the typical specimens. It represents two old birds and a young one, all being of about the natural size.

[R. B. S.]



TANYPTERA NIGRICEPS, *Solater.*

TANYSIPTERA NIGRICEPS, *Sclater*.

Black-headed Tanysiptera.

Tanysiptera nigriceps, Sclater, P. Z. S. 1877, p. 105.—Salvadori, Ann. Mus. Civic. Genov. x. p. 303.

Writing in 1871, the late Mr. Blyth insisted strongly on the fact that the Cape-York Peninsula of Australia ought to be united in a zoo-geographical sense to the Papuan subregion as we now understand it. The main reason was, of course, the presence of a Cassowary in the above-named peninsula; but, in addition to this, there are also some very remarkable forms of birds which are of a Papuan type and were known to occur only in New Guinea and in the north-eastern peninsula of Australia, such, for instance, as *Pitta mackloti* and *Tanysiptera sylvia*. It is more particularly of the latter that I would now speak.

The last-named beautiful Kingfisher, which I had the pleasure of describing as long ago as 1850, differed at once from all the other *Tanysipteræ* in its fawn-coloured under surface; and for many years it was a very rare bird in European museums. More recently, however, numerous specimens have been collected in the Cape-York Peninsula, and forwarded to this country; but its occurrence in New Guinea was until lately somewhat conjectural. All doubt on this point has now been set at rest by the researches of Signor D'Albertis, who procured two specimens in Hall Bay, in South-eastern New Guinea; for, although Count Salvadori mentioned to me certain differences of plumage observable in the New-Guinea birds, I believe that these are not any of specific importance, and that they are indications of immaturity in the examples examined by him.

Now, as most of my readers are aware, there lie to the eastward of New Guinea certain large and important islands (New Britain, New Ireland, and the Solomon Islands); and the more we know of the zoology of these islands the more do we see that their fauna is Papuan in its character, having little in common with Australia or with Oceania. Of New Britain and New Ireland we know very little ornithologically; but our knowledge has been increased during the past twelve months by the very interesting investigations of Mr. George Brown, C.M.Z.S., who sent a collection of birds from the above-named localities and from Duke-of-York Island to Dr. Sclater, by whom an account of the collection has been published in the 'Proceedings of the Zoological Society' for 1877. The specimens themselves have now become the property of the Marquis of Tweeddale, to whom I am indebted for the opportunity of figuring some of the most interesting novelties. Most of the species sent by Mr. Brown are either Papuan or at least are closely allied to New-Guinea species; and it was highly interesting to find in the Kingfisher here figured a representative, not of the brilliant blue-and-white forms, such as *Tanysiptera galatea*, *T. nais*, &c., but of *T. sylvia*, the Cape-York species. Like the latter, it wants the great racket or spatule at the end of the long tail-feathers, such a pronounced feature in most of the *Tanysipteræ*, and it has the same tendency to cross these two long rectrices; in fact it is very closely allied to *T. sylvia*, but is at once recognizable by its black head.

The following is a description of the type specimen:—

Head, neck, mantle, and scapulars jet-black, as also the lores, sides of face, and ear-coverts; in the centre of the back a large dorsal patch of white; rump also white; upper tail-coverts particoloured, white on the inner web, black on the outer one; lateral tail-feathers black, washed with blue on the outer web; the two long centre feathers white, with slightly dilated ends, the shafts white, the outer edges blue; the next feather on each side black, the shafts black, white for the greater part of the inner web, washed with blue on the outer; wings blue, more brilliant on the least coverts adjoining the back, the quills black on the inner webs; cheeks and under surface of body light cinnamon; the under tail-coverts whitish; flank-feathers somewhat varied with black edgings, as also the thigh-feathers; sides of the lower back black, bordering the white rump; under wing-coverts cinnamon-colour, like the breast, some of the outermost and greater series edged with blackish; quills dusky below, whitish along the base of the inner web; bill coral-red.

Total length 11·7 inches, culmen 1·5, wing 3·65, tail 7·0, tarsus 0·6.

The figure in the Plate is drawn from the typical example, and represents the species of about the natural size.



TANYSIPTERA MICRORHYNCHA, Sharpe.

TANYSIPTERA MICRORHYNCHA, *Sharpe*.

Port-Moresby Racket-tailed Kingfisher.

- Tanyiptera galatea*, var. *minor*, Salvad. et d'Albert. Ann. Mus. Civic. Genov. vii. p. 815 (1875).—Salvad. op. cit. ix. p. 21 (1876).—Id. Proc. Zool. Soc. 1876, p. 752.—D'Albert. & Salvad. Ann. Mus. Civic. Genov. xiv. p. 49 (1879).—Ramsay, Proc. Linn. Soc. N. S. Wales, iv. p. 90 (1879).
Tanyiptera microrhyncha, Sharpe, Proc. Linn. Soc. xiii. pp. 311, 493 (1878), xiv. pp. 629, 686 (1879).
Tanyiptera galatea, pt., Salvad. Orn. Papuasias e delle Molucche, i. p. 439 (1880).—Finsch, Vögel der Südsee, p. 24 (1884).
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THE Racket-tailed Kingfisher from South-eastern New Guinea is closely allied to the ordinary *T. galatea* of the north-western portion of the island, but it is decidedly smaller, and has the back black with less blue. Whether the latter is a good character remains to be proved, as we find that it varies somewhat, a specimen collected by Mr. Broadbent having the back strongly washed with purplish blue, contrasting with the head and wing-spot, which were rich silvery cobalt. It is probable that this is the very old male bird, but the full changes of plumage in the species require to be worked out.

In South-eastern and Southern New Guinea the present species seems to have a wide range. Mr. Hunstein met with it at East Cape, and the Rev. W. G. Lawes at Walter Bay. It also occurs in the interior portions of the Port Moresby district, as Dr. Finsch records it from the Goldie and Laloki Rivers, Mr. Goldie in the Morocco district, and Mr. H. O. Forbes in the Sogeri district of the Astrolabe Mountains. Signor D'Albertis procured specimens at Naiabui, Yule Island, Mount Epa, and Hall Bay; he also met with the species on the Fly River.

The following description is a copy of the one originally given by us (*l. c.*):—

Adult female. Crown of head and nape cobalt-blue, a little brighter round the edge of the crown and on the nape, and slightly dashed with silvery cobalt over the eye, the forehead rather duller blue; lores, feathers below the eye, and the ear-coverts black, slightly washed with deep blue, as also are the sides of neck, mantle, back, and scapulars, on which, however, the blue shade is not so apparent; wings black, the wing-coverts and secondaries externally deep purplish blue, the innermost of the greater and median coverts bright cobalt, forming a shoulder-patch; lower back, rump, and upper tail-coverts pure white, the latter with an indistinct narrow fringe of dark blue; tail white, the outer feathers more or less edged with blue towards the tip, the two long centre feathers blue, with a long white spatula, the base of these two plumes irregularly white in the centre and along the inner edge, the next two feathers with remains of blue near the base of the shaft; moustache and entire under surface of body pure white, the sides of the upper breast black; under wing-coverts white, the lesser plumes on the upper band of the wing blue-black, shading into brighter blue on the edge of the wing itself; bill red; feet dusky. Total length 15·5 inches, culmen 1·3, wing 4, tail 3·9, centre feathers 9·7, tarsus 0·6.

The specimen figured in the Plate represents an adult bird procured by Mr. H. O. Forbes in the Sogeri district in South-eastern New Guinea.

[R. B. S.]



SAUROMARPTIS GAUDICHAUDI.

SAUROMARPTIS GAUDICHAUDI.

Gaudichaud's Kingfisher.

- Dacelo gaudichaudi*, Quoy & Gaim. Voy. de l'Uranie, p. 112, pl. xv.—Gray, Cat. Fissirostres Brit. Mus. p. 52.—Id. Gen. B. i. p. 78.—Bonap. Consp. Av. i. p. 154.—Cass. Cat. Halcyonidæ Philad. Mus. p. 14.—Sclater, Proc. Linn. Soc. ii. p. 155.—Schlegel, Mus. Pays-Bas, Alced. p. 20.—Id. Vog. Nederl. Indië, Alced. pp. 13, 49, pl. iv.—Gray, Hand-list of Birds, i. p. 89, no. 1063.—Sharpe, Monogr. Alced. p. 295, pl. cxvi.—Id. Journ. Linn. Soc. xiii. pp. 313, 493.—Ramsay, Proc. Linn. Soc. N. S. Wales, i. p. 389.—D'Albert. Ann. Mus. Civic. Genov. x. p. 19.—Sharpe, Linn. Soc. Journal, xiv. p. 686.
- Choucalcyon gaudichaudi*, Lesson, Traité d'Orn. p. 248.—Bonap. Consp. Volucr. Anis. p. 9.
- Monachalcyon gaudichaudi*, Reichenbach, Handb. Alced. p. 37, Taf. ccccxv. fig. 3156.
- Sauromarptis gaudichaudi*, Cab. & Heine, Mus. Hein. Th. ii. p. 164.—Salvad. Ann. Mus. Civic. Genov. vii. p. 765.—Id. & D'Albert. tom. cit. p. 816.—Salvad. op. cit. viii. p. 398.—Id. op. cit. ix. p. 21.—Id. op. cit. x. pp. 128, 306.—D'Albert. & Salvad. op. cit. xiv. p. 53.

No greater proof could be given, of the great progress which ornithology has made during the last ten years, than a comparison of the localities which this species was known to inhabit in the year 1869 with the list of habitats which are enumerated by Count Salvadori in his 'Prodromus' of the Kingfishers of New Guinea and the Papuan Islands. Originally discovered in New Guinea and Guébeh by Messrs. Quoy and Gaimard during the voyage of the 'Uranie,' the localities of Waigiou, Mysol, and the Aru Islands were added by Mr. Wallace. Mr. Sharpe also includes Ceram, on the authority of specimens in the Leiden Museum; but Count Salvadori omits this island from his list, and it seems doubtful if the species has ever really occurred there. Count Salvadori has examined one hundred and twenty specimens collected in the Papuan Islands by the recent Italian explorers Beccari and D'Albertis, as well as the Dutch voyagers Bruijn, Bernstein, and von Rosenberg; and the following places are given by him as habitats for this fine species:—N.W. New Guinea, Dorey, Mansinam, Andai, Warbusi, Wairoro, Dorei-Hum, Sorong, Kukuladi, Lobo, and the following islands—Salawati, Batanta, Waigiou, Guébeh, Jobi, Miosnom, Mysol, and the Aru Islands; while it has also been found in South-eastern New Guinea. In this part of the great Papuan island D'Albertis has found the species on the Fly River and in Hall Bay, the Rev. Mr. Lawes at Hood Bay (60 miles east of Port Moresby), Dr. James at Nicura, and Mr. Stone on the Laloke river.

Messrs. Quoy and Gaimard give the following note on this Kingfisher in their original account of the bird:—"This species, to which we have given the name of our friend and colleague the botanist attached to the expedition, inhabits the woods of the Papuan Islands. The aborigines call it *Mangrogone* and *Mankinetrous*; the inhabitants of Guébé call it *Salba*,—these being the names employed by the islanders for all Kingfishers. It is not shy, and is easily approached. The individuals that we killed had their beaks still covered with the earth in which they had been digging to procure their food." Mr. Wallace states that he found the species not uncommon in swampy jungle, where its curious loud barking was often heard and was sometimes mistaken for that of a dog. It feeds on Crustacea, butterflies, Mollusca, and Myriopoda.

The following descriptions are given by Mr. Sharpe in his 'Monograph':—

"*Adult male*.—Crown of the head, cheeks, ear-coverts, upper part of the back, and scapularies deep black; in very old birds a few of the feathers edged with bright blue; a patch of feathers along the base of the upper mandible, a stripe behind the eye, and a collar round the neck ochre; a spot on the occiput white; wing-coverts black washed with bright cobalt; quills blackish, the inner web light ochre from the base, the outer web edged with deep indigo, more especially on the secondaries; lower back and upper tail-coverts bright silvery blue; tail deep indigo above, black underneath; throat pure white; sides of neck and under wing-coverts white tinged with light ochre; rest of under surface of body deep chestnut; bill light yellow, the upper mandible tinged with black; feet black. Total length 11·8 inches, culmen 1·8, wing 5·3, tail 4·0, tarsus 0·85.

"*Female*.—Similar to the male, but having the colours not quite so bright, and the tail reddish."



MELIDORA MACRORHINA, Less.

MELIDORA MACRORHINA.

Hook-billed Kingfisher.

- Dacelo macrorhinus*, Less. Voy. Coquille, Zoologie, Atlas, pl. 31 bis, fig. 2 (1826).—Id. Féruss. Bull. Sci. Nat. xii. p. 131 (1827).—Id. Voy. Coquille, Zool. i. p. 692 (1828).—Id. Man. d'Orn. ii. p. 94 (1828).—Gray, Cat. B. New Guinea, p. 19 (1859).—Id. Proc. Zool. Soc. 1859, p. 154.
- Melidora euphrosia*, Less. Traité d'Orn. p. 259 (1831).—Id. Compl. Œuvres de Buffon, Oiseaux, p. 653 (1838).—Bp. Consp. Gen. Av. i. p. 150 (1850).—Finsch, Neu-Guinea, p. 160 (1865).
- Dacelo macrorhynchus*, Less. Traité d'Orn. p. 249 (1831).
- Melidora macrorhyncha*, Gray, List Gen. Birds, i. p. 10 (1840).—Id. List Gen. Birds, p. 14 (1841).—Id. Handl. B. i. p. 89, no. 1067 (1869).—Ramsay, Proc. Linn. Soc. New S. Wales, iii. p. 252 (1878), iv. p. 97 (1879).
- Dacelo macrorhynchus*, Gray, Genera of Birds, i. p. 78 (1846).
- Melidora macrorhina*, Reichenb. Handb. spec. Orn. *Alced.* p. 41, sp. 99, Taf. 428. figs. 3166–7 (1851).—Sclater, Journ. Linn. Soc. ii. p. 156 (1858).—Sharpe, Mon. Alcedinidæ, p. 120 (1871).—Beccari, Ann. Mus. Civ. Genova, vii. p. 708 (1875).—Salvad. tom. cit. p. 766, viii. p. 398 (1876).—Cab. & Reichenow, Journ. f. Orn. 1876, p. 323.—Salvad. Ann. Mus. Civ. Genova, xi. pp. 128, 303; xiii. p. 319 (1878).—Id. Orn. Papuasias, &c. i. p. 500 (1881).
- Melidora euphrosinæ*, Reichenb. loc. cit.; Rosenb. Nat. Tijdschr. Nederl. Ind. xxv. p. 230 (1863).—Id. Journ. f. Orn. 1861, p. 117.
- Melidora euphrasie*, Bp. Consp. Vol. Anisod. p. 9 (1854).
- Dacelo macrorhynchus*, Gray, Proc. Zool. Soc. 1858, p. 189.—Id. Cat. B. New Guinea, p. 54 (1859).—Id. Proc. Zool. Soc. 1861, p. 433.
- Dacelo macrorhina*, Schlegel, Mus. Pays-Bas, *Alcedinidæ*, p. 22 (1863).—Id. Vog. Ned. Ind. *Alced.* pp. 17, 51, pl. 4. fig. 1 (1864).—Id. Mus. Pays-Bas, *Alced.* (Revue), p. 18 (1874).—Giebel, Thes. Orn. ii. p. 7 (1875).
- Melidora goldiei*, Ramsay, Proc. Linn. Soc. New S. Wales, i. p. 369 (1876).
- Melidora collaris*, Sharpe, Journ. Linn. Soc. xiii. p. 313 (1877).

It is to Count Salvadori that we owe our knowledge of the plumages through which this extraordinary form of Kingfisher passes. Mr. Bowdler Sharpe, in his Monograph of the family, seems to have been acquainted with the female bird only; and at the time that he wrote, very few specimens existed in European museums. More recently, however, Mr. Bruijn and the well-known Italian traveller Signor D'Albertis have forwarded to the Genoa museum a large series of specimens, while it has also been obtained by other naturalists in South-eastern New Guinea. The late Dr. James met with it near Hall Bay; and Mr. Ramsay has recorded it from the interior of the country near Port Moresby. We have also seen specimens collected near East Cape by Mr. Hunstein, and by Mr. Goldie on the Astrolabe range.

The south-eastern specimens were described independently by Mr. Ramsay and Mr. Sharpe as a distinct species; but Count Salvadori compared the type of *Melidora collaris* with others from North-western New Guinea, and feels certain that it is nothing but the ordinary adult male of *M. macrorhina*.

The present species was discovered by Lesson during the voyage of the 'Coquille,' near Dorey, where also Mr. Wallace and Von Rosenberg met with it. It has likewise been found by the latter collector, and by Signor D'Albertis at Andai; while Dr. Beccari met with it at Warbusi, and D'Albertis at Ramoi. It inhabits likewise the islands of Salawati, Batanta, Waigiou, and Mysol. Professor Schlegel states that the specimens in the Leyden Museum from Waigiou differed in having the spots on the back and wings clearer, and of a bright greenish yellow; but Count Salvadori could not find any points of difference in individuals collected in that island by Beccari and Bruijn. We are still without any exact information as to the habits of this peculiar Kingfisher, whose hooked bill would seem to be adapted for some special purpose in the capture of its prey.

I here translate the description of the sexes given in Count Salvadori's work, from which also the synonymy of the species has been derived.

Adult male. Head black, feathers margined with blue, a spot on each side of the forehead, extending above the eyes, rufous; cheeks and ear-coverts black, the former separated from the latter by a whitish band starting from the angle of the mouth; round the neck a black collar, succeeded by a white one; remainder of the upper surface dusky brown, with broad ochraceous yellow margins to the feathers, those of the rump and upper tail-coverts more yellow; quills dusky, the secondaries externally margined with rufous, internally with broad fulvous edges; beneath dull white, with very narrow dusky edges to the feathers of the throat

and upper breast ; under tail-coverts rufescent ; tail-feathers brownish tipped with ochraceous ; bill black above, white underneath ; feet greenish olive ; iris black.

Female. Similar to the male, but with the head black with obscure yellowish ochre margins to the feathers, surrounded by a band of blue ; collar round the hind neck whitish and rufous ; vent white, very slightly rufescent ; throat rufescent with dusky black margins to the feathers. Young birds resemble the old female, and have the underparts of a rufous colour. It must be noted that the figures in Mr. Sharpe's work have the soft parts very erroneously coloured, as might have been expected at a time when all information on this subject was wanting.

The Plate represents a male and a female, of the natural size, the latter being the upper figure. They have been drawn from a pair of birds in my own collection.

[R. B. S.]



HALCYON TRISTRAMI, *Layard*.

HALCYON TRISTRAMI, *Layard*.

Tristram's Kingfisher.

Halcyon tristrami, Layard, Ibis, 1880, pp. 299, 460, pl. xvi.—Ramsay, Proc. Linn. Soc. N. S. W. vi. p. 834 (1882).—Tristr. Ibis, 1882, p. 609.

Sauropatis tristrami, Salvad. Ann. Mus. Civic. Genov. xviii. p. 420 (1882).—Id. Orn. Papuasie e delle Molucche, iii. App. p. 524 (1882).

CONSIDERING that scarcely five years have elapsed since this species was discovered, its history has already been sufficiently complicated. The first mention of the bird is in 'The Ibis' for 1880; and Mr. E. L. Layard there states that he has a specimen of a Kingfisher from the Solomon Islands, which he proposes to name *H. tristrami*, but he does not describe it. Later on, however, in the same year he refers to this bird as being probably from Makira Harbour, and compares it with *H. vagans* of New Zealand. In his list of the birds of the Solomon Islands, published in 'The Ibis' for 1882 (pp. 141–146), Canon Tristram omits all mention of the species as an inhabitant of the group; but in the meantime Mr. Ramsay makes some remarks upon the species, and calls attention to the absence of the nape-patch in the plate and description given by Mr. Layard (*l. c.*). Canon Tristram, noticing this paper in 'The Ibis' for 1882 (p. 609), gives the dimensions of *H. tristrami* for the first time, and states that he considers it to be "further removed from *H. vagans* than from any other of the group." He likewise states that it has no occipital patch whatever, and that he "possesses the type specimens." No wonder, then, that Count Salvadori finds that he has been a little puzzled with regard to the history of the species.

First of all, there cannot be more than one type specimen of *H. tristrami*, which must be the supposed Solomon-Island specimen first mentioned by Mr. Layard; and with regard to the want of the occipital patch, it is clearly visible on a close examination in the specimen described by us below, and therefore its absence in Canon Tristram's specimen must be purely accidental. The British Museum possesses a nestling which has it plainly developed.

Lastly, we cannot quite understand why Canon Tristram should object to the close resemblance of *H. tristrami* to *H. vagans*, as in our opinion it is only distinguished from the latter species by its larger size, more vivid coloration, and by the deep cinnamon-buff colour of the underparts.

It is possible that there is some error respecting the occurrence of this bird in the Solomon Islands, for Mr. Layard does not appear to have been very certain about the origin of his type specimen. Three examples which have fallen under our notice have been from New Britain; but in all probability it is likewise found in Duke of York Island, as Mr. L. C. Layard does not mention particularly that it is confined to the former of the two (see 'Ibis,' 1880, p. 294). He states that it was "only got in the thick parts about the mountain-slopes; we never observed it mixing among its smaller brethren (*H. sanctus*) on the open shore. Their habitats being so different, their food was different also. The large one ate beetles, locusts, and small lizards, and the lesser one contented himself with fish and sea-worms. Native name for both 'Akiki.'"

Adult male. General colour above dark green, with more or less of a bluish tinge; the whole of the back, rump, and upper tail-coverts brighter cobalt, leaving the mantle and scapulars dull green; wing-coverts greenish cobalt, brighter blue on the greater series, and deepening into ultramarine on the outer aspect of the quills, which are otherwise black; the innermost secondaries above greenish; tail-feathers deep blue, the shafts below, as well as the edge of the inner web, blackish; crown of head green, slightly washed with blue; a loreal spot of ochreous buff; feathers in front of and round the eye black, with a half-concealed white spot below the latter; on the sides of the crown above the eye a few small whitish streaks; sides of the crown brighter blue, meeting on the nape; a concealed occipital patch of ochreous buff; a streak from below the gape joining the feathers below the eye and the ear-coverts bluish green, the hindermost of the latter black, joining a collar which surrounds the nape and separates the head from a very broad band of ochreous buff, which runs round the hind neck and joins the breast; this ochreous-buff band is separated from the mantle by a narrow shade of blackish; cheeks ochreous buff; throat whiter; fore neck and breast ochreous buff, deepening into cinnamon-buff on the lower breast, sides of body, and under tail-coverts; under wing-coverts and axillaries also deep cinnamon-buff; quills blackish below, yellowish buff along the edge of the inner web: "bill black; legs ash-coloured; iris brown" (*L. C. Layard*). Total length 9·3 inches, culmen 2·05, wing 4·3, tail 2·8, tarsus 0·55.

The specimen described and figured is a male, obtained in Blanche Bay, New Britain, by Captain Richards on the 2nd of July, 1879.

[R. B. S.]



HALCYON LEUCOPYGIA.

HALCYON LEUCOPYGIA.

White-backed Kingfisher.

- Cyanalcyon leucopygius*, Verr. Rev. et Mag. de Zool. 1858, p. 385.—Salvad. Ann. Mus. Civic. Genov. x. p. 305 (1877).
Halcyon leucopygia, Gray, Cat. B. Trop. Isl. Pacific Ocean, p. 7 (1859).—Sclater, Proc. Zool. Soc. 1869, p. 119.—Gray, Hand-l. B. i. p. 92, no. 1109 (1869).—Sharpe, Monogr. Alced. pl. 74 (1871).—Ramsay, Proc. Linn. Soc. N. S. W. iv. p. 67 (1879).—Salvad. Ibis, 1880, p. 127.
Todirhamphus leucopygius, Sclater, Proc. Zool. Soc. 1869, p. 124.
Cyanalcyon leucopygia, Salvad. Ann. Mus. Civic. Genov. x. p. 305 (1877).—Id. Orn. Papuasia, etc. i. p. 456 (1880).
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THIS beautiful Kingfisher was until recently one of the rarest of the family in European collections ; for when the ‘ Monograph of the Kingfishers ’ was written but one specimen, the type in the British Museum, was known to naturalists, and this was figured in the work above mentioned. Since then the only naturalist who has met with the species in its native haunts has been Mr. Cockerell, who procured a large series in Guadalcanar in the Solomon Archipelago. His collection was described by Mr. Ramsay, who was the first to point out the difference in the colouring of the sexes, the white back, from which the species derives its name, being apparently the sign of the male, as the female has the lower back beautiful blue. The lilac colour which is so distinct on the sides of the lower back in both sexes will always be considered one of the peculiar characters of this fine species of *Halcyon*.

Nothing has been recorded concerning the habits of this species, which, so far as we know, is only found in the Solomon group of islands.

The following is the description of the type specimen, transcribed from the ‘ Monograph ’ :—

Adult male. Head, scapulars and wing-coverts, and upper part of the back rich ultramarine ; a collar round the neck, the entire back except the interscapular portion, and the under surface of the body pure white ; cheeks black ; upper tail-coverts ultramarine ; lower part of the flanks bordering the rump and vent lilac shaded with purple ; quills and tail black, washed with blue above, greyish black underneath ; bill entirely black ; feet olive-brown. Total length 8·2 inches, of bill from front 1·6, from gape 2·1, wing 3·3, tail 2·5, tarsus 0·5.

Adult female. Similar to the male, but having the lower back blue instead of white. Total length 7·5 inches, wing 3·3, tail 2·3, tarsus 0·5.

The figures in the Plate are drawn from a pair lent to us by Mr. E. P. Ramsay, and belong to the Australian Museum ; they represent the male and female of the natural size.

[R. B. S.]



HALCYON QUADRICOLOR, *Oustalet*.

J. Gould & W. Hart, del. et lith.

Walter, imp.

HALCYON QUADRICOLOR.

Four-coloured Kingfisher.

Cyanalcyon quadricolor, Oustalet, Le Naturaliste, 1880, p. 323.

THIS beautiful species was discovered by Mr. Bruijn's hunters on the west coast of New Guinea, and appears to be a very distinct bird. Count Salvadori has, indeed, suggested to me that it may be the young of *Halcyon nigrocyanea*; but this I do not think likely to be the case. Mr. Sharpe examined the type specimen in the Paris Museum, and assures me that the bird is adult, and quite distinct from the last-named species. Both Professor Schlegel, in his *Revue of the Kingfishers in the Leyden Museum*, and Count Salvadori, in his '*Ornitologia della Papuasie*,' record specimens of *H. nigrocyanea*, which they consider to be immature, as being rufous or rufous-brown underneath; but I can scarcely think that there can be much similarity between these young birds and the specimen figured in my Plate.

Dr. Oustalet describes the present bird as follows:—

"Some months ago I had occasion to draw attention to the presence of a new species of *Talegallus* (*Talegallus* or rather *Æpypodius bruijnii*) among a collection of birds killed by Mr. Bruijn's hunters on the west coast of New Guinea and in the neighbouring islands. In this same collection, which was acquired by the Paris Museum, was a beautiful Kingfisher of moderate size belonging to the small group which is known by the name of *Cyanalcyon*, and much recalling by its proportions, and by the coloration of the upper part of the body, of its beak, its feet, throat, and breast, the species coming from the north-west coast of New Guinea, which was described by Mr. Wallace in 1862 under the name of *Halcyon nigrocyanea* (Proc. Zool. Soc. 1862, p. 165, pl. xix.). The individual before me has, like the bird figured by Mr. Wallace, the bill black, with a little white in the middle of the lower mandible near its base; the feet black; the upper part of the head dark blue, passing into ultramarine on the nape and towards the eyebrows, and contrasting strongly with the black colour which occupies the middle of the back and the two large black spots which cover the cheeks, the feathers below the eye, and the sides of the throat. The wings are of a dark blue, with the scapular feathers of a bright blue; the under wing-coverts black, crossed by a white band; the tail is blue above, black below; the upper tail-coverts of a clear and intense cobalt-blue; the throat pure white, bordered below by a broad blue band. But the abdominal region presents an entirely different coloration: in fact, in the female which was figured in the '*Proceedings*,' the belly is of a pure white, with black flanks; here, on the contrary, the belly is of a very pronounced cinnamon-rufous, with some black and blue feathers on the sides, and this rufous colour is separated from the blue band by a somewhat narrow but well-defined line of white. We may not attribute this difference in colour to a difference in sex, because, according to Mr. Bruijn's indications, in which one can place confidence, the individual acquired by the Museum is a female like Mr. Wallace's type. We know, moreover, as a natural fact that the male of *Halcyon nigrocyanea* has the belly azure-blue. In short, although I find in Schlegel's '*Catalogue des Martins Pêcheurs du Musée des Pays-Bas*' (Revision, 1874, p. 31) this note—'A young male killed on the 7th May 1870, at Andai, by Von Rosenberg, is remarkable for having the blue of the under surface replaced by rufous brown,' I certainly cannot consider the individual before me as being young. It has, in fact, the dress of a perfectly adult bird, with the colours pure and brilliant, and does not show any sign of spots, or of the grey or rufous bars which are the sign of immaturity. I propose, therefore, to make it the type of a new species, to be called *Cyanalcyon quadricolor*, to draw attention to the four colours (blue, white, rufous, and black) which are spread over its plumage."

During a recent visit to Paris, Mr. J. G. Keulemans painted me a picture of the type specimen in the Paris Museum, which has been reproduced by Mr. Hart in the accompanying Plate. The principal figure is life-size.

[R. B. S.]



HALCYON NIGROCYANEA, *Wallace.*

HALCYON NIGROCYANEA, *Wallace*.

Black and Blue Kingfisher.

Halcyon nigrocyanea, Wallace, Proc. Zool. Soc. 1862, p. 165, pl. xix.—Gray, Hand-list of Birds, i. p. 93 (1869).—Sharpe, Monogr. Alced. p. 201, pl. 75 (1870).—Beccari, Ann. Mus. Civic. Genov. vii. p. 708 (1875).
Dacelo nigrocyanea, Schlegel, Nederl. Tydschr. Dierk. iii. p. 250 (1865).
Cyanalcyon nigrocyanea, Salvad. Ann. Mus. Civic. Genov. x. p. 127 (1877).—Id. op. cit. p. 305 (1877).

THE present species is the finest of the little group of Kingfishers to which the generic title of *Cyanalcyon* has been applied, and which includes *Halcyon macleayi* of Australia, *Halcyon diops* of the Moluccas, *H. lazuli* of Ceram and Amboina, *H. leucopygia* of the Solomon Islands, and lastly the beautiful species from the Fly River, *H. stictolæma*, which I figure in the present part. I do not wish to deny for a moment that the little group above enumerated does not constitute a distinct genus or, rather, subgenus; but for the sake of uniformity I keep the species in the genus *Halcyon*, in which the allied species have been included in all my former works.

Mr. Wallace originally discovered the subject of these remarks in North-western New Guinea, but only managed to procure a single hen bird, which was figured in the 'Proceedings' of the Zoological Society, and, again, in Mr. Sharpe's 'Monograph of the *Alcedinidæ*.' The latter work contained a representation also of the male sex, which had been collected by Von Rosenberg at Andei, and was in the Museum at Leiden. Since the year 1870 more examples have been procured by the travellers to New Guinea; and Count Salvadori enumerates fourteen specimens as belonging to the Civic Museum at Genoa or examined by him during his study of the Papuan Kingfishers. The localities given by him are Dorei (*Bruijn*), Andei (*Von Rosenberg*, *D'Albertis*, *Bruijn*), Warbusi (*Beccari*), Sorong (*Bernstein*, *Bruijn*), Batanta (*Beccari*, *Bruijn*). These localities are all situated on the mainland of North-western New Guinea, or are islands closely adjacent to the N.W. peninsula. Beccari found it nowhere common; but beyond this we know nothing of its habits; these, however, without doubt are similar to those of other species of the genus *Halcyon*.

The following descriptions are taken from Mr. Bowdler Sharpe's Monograph of the Kingfishers:—

"*Adult male*. Head intense ultramarine, brighter on the sides, a line of brilliant ultramarine commencing at the back of each eye and encircling the nape; middle of the back and scapulars deep velvety black, a blue lustre being apparent here and there on the latter; wing-coverts deep ultramarine, the innermost greater coverts more brilliant, inclining to cobalt; quills black, the outer web washed with deep ultramarine; lower portion of the back and rump brilliant cobalt; upper tail-coverts deep ultramarine; tail deep ultramarine above, black beneath, cheeks and ear-coverts jet black; chin dusky black; throat and a narrow band across the centre of the breast white; rest of the under surface of the body deep ultramarine, becoming black on the sides of the body and lower abdomen; under wing-coverts black; bill black, yellow at the extreme base; feet black. Total length 8·5 inches, culmen 1·9, wing 3·5, tail 2·8, tarsus 0·5.

"*Adult female*. Upper surface as in the male. Entire under surface white, with the exception of a broad pectoral band of deep ultramarine; sides of the body black; under wing-coverts black; some white; bill black, with more yellow on the under mandible than the male. Total length 9 inches, culmen 1·9, wing 3·6, tail 2·8, tarsus 0·5."

The specimens figured in the accompanying Plate are in my own collection. They represent the male and female of the natural size.



HALCYON STICTOLEMA.

HALCYON STICTOLÆMA.

Spotted-throated Kingfisher.

Cyanalcyon stictolæma, Salvad. Ann. Mus. Civic. Genov. ix. p. 20 (1876).—Id. op. cit. x. p. 304 (1877).—

D'Albert. & Salvad. op. cit. xiv. p. 51 (1879).

Halcyon nigrocyanea, D'Albert. (nec Wallace), Ibis, 1876, p. 360.

Cyanalcyon nigrocyanea, D'Albert. (nec Wallace), Ann. Mus. Civic. Genov. x. pp. 10, 19 (1877).

VERY similar to the *Halcyon nigrocyanea* of North-western New Guinea, in my opinion the present species is nevertheless quite distinct. Nobody examining the two species could, I believe, hesitate to separate them, notwithstanding the fact that Signor D'Albertis, who discovered this new Kingfisher in South-eastern New Guinea, considered it to be precisely the same as *Halcyon nigrocyanea*, a bird he had killed himself in North-western New Guinea.

The present species is like *Halcyon nigrocyanea*, but differs at a glance by the want of the white band across the breast, and by having the throat almost entirely blue, mottled with white bases to the feathers. The female bird is nearly the same as the female of the allied species; but *H. stictolæma* has much less white on the throat and abdomen, while the pectoral band is much broader. The habitat of the species is, as far as is known at present, only the vicinity of the river Fly, where Signor D'Albertis obtained one specimen during his first expedition in 1875. On his second excursion, in 1877, he managed to procure six examples, which are fully described by himself and Count Salvadori in the fourteenth volume of the 'Annali' of the Civic Museum of Genoa. Three of these were most kindly lent to me by Signor D'Albertis for the purposes of the present work; and I have to acknowledge my obligations to this gentleman for his assistance on this and other occasions.

Mr. Sharpe, who has seen the specimens, has supplied me with the following descriptions:—

"*Adult male*. General colour above black, the head deep ultramarine, the sides of the crown more brilliant ultramarine inclining to cobalt, forming an eyebrow which borders the blue crown and encircles the nape; wing-coverts ultramarine, the lesser ones slightly more brilliant; quills blackish, externally washed with dull blue; scapulars black, washed with blue at the ends; lower back cobalt, deepening into ultramarine on the longer feathers of the rump; upper tail-coverts deep ultramarine; tail-feathers dark blue; lores, feathers round the eye, cheeks, ear-coverts, sides of neck, sides of breast, flanks, thighs, vent, and under tail-coverts black, the latter tipped with ultramarine; chin black; throat ultramarine mottled with white bases to the feathers; breast and abdomen rich ultramarine; under wing-coverts and axillaries black; edge of wing greenish blue; quills dusky blackish below, ashy along the inner web. Total length 9 inches, culmen 2·25, wing 3·25, tail 3, tarsus 5.

"*Adult female*. On the upper surface entirely like the male, but differs below in having the throat and abdomen white, separated by a broad pectoral band which is ultramarine in the middle, black at the sides; sides of body and flanks black; under wing-coverts black, with a band of white running down the middle, many of the median and greater under wing-coverts being tipped with white; under tail-coverts as in the male.

"*Young*. Resembles the old female, but is much more dusky black, the crown being also black, with an ultramarine eyebrow; wing-coverts black, tipped with blue; lower back bright ultramarine, but not so brilliant as in the adults; sides of face and sides of body, vent, and lower abdomen dusky black; throat dull white, the feathers obscured with dusky blackish tips; centre of abdomen pale ochraceous brown, separated from the throat by a broad blackish band, the central feathers washed with blue; under tail-coverts blackish, tipped with blue."

Count Salvadori describes some of the males as having a residue of rusty feathers on the abdomen, the remains of the young plumage. The adults, according to Signor D'Albertis, have the bill black the feet clear plumbeous, and the iris chestnut-brown; and in the younger birds the iris is black, and the feet are very dusky plumbeous. The food of the species consists of Crustacea.

The figures in the Plate represent an adult male, adult female, and a young female, drawn to about the natural size from three of the typical specimens, lent to me by Signor D'Albertis.



CLYTOCEYX REX, Sharpe.

CLYTOCEYX REX, *Sharpe*.

Spoon-billed Kingfisher.

Clytoceyx rex, Sharpe, Ann. Nat. Hist. (5th ser.) vi. p. 231 (1880).

THE remarkable bird which is figured in the accompanying plate is a native of South-eastern New Guinea, where it was obtained by Mr. Charles Hunstein, who has been collecting in the interior about Milne Bay, East Cape, and the neighbouring localities. Having already in the course of the present work had occasion to express some disappointment that the southern portion of the great Papuan island had not produced the number of new species which one might reasonably have expected, I feel bound to qualify this opinion when I see before me such an extraordinary form of bird as the present. It is evident that the avifauna of the lowlands has too much resemblance to that of the adjoining continent of Australia and to that of the Aru Islands for us to expect, until the mountains are reached, any thing strikingly different from the birds of these two localities.

In the MS. list of birds sent by Mr. Hunstein he speaks of this species as the “Spoon-billed” Kingfisher; and I have adopted this English name, not so much on account of its absolute correctness from an ornithological point of view, but because it represents the first impression of the original collector. To ornithologists the epithet of “spoon-bill” recalls the flattened and spatulated bill of the orthodox Spoonbill (*Platalea*), or that of the spoon-billed Sandpiper (*Eurhynchus*); but the beak of this large Kingfisher more resembles the bowls of two spoons placed in opposition to each other.

We have as yet no details as to the habits of the present species; but they doubtless resemble those of the large “Jackasses” of Australia. The bills of the specimens sent were covered with dried earth, as if the birds had been grubbing for food on the ground. Although the species is, no doubt, generically distinct from the Laughing Jackasses of Australia, there can be no doubt that in the genus *Dacelo* it will find its nearest allies. Different as the bill is, there is one character which betrays this affinity; and that is seen in the difference of the sexes, the male having a blue tail, and the female a rufous one; this, as is well known, is one of the leading features in a true *Dacelo*.

I translate the original description given by Mr. Bowdler Sharpe.

Male. Head brown; feathers surrounding the eye and sides of the face brown; ear-coverts black, extending backwards onto the sides of the neck and forming a broad band; a stripe above the eye, the lower cheeks and a broad band on the neck ochraceous buff; interscapular region black; scapulars and wing-coverts brown, the latter margined with ochraceous, the outermost of the least series washed with greenish blue; primary-coverts and quills dark brown, externally washed with dull green; lower back and rump silvery cobalt; upper tail-coverts and tail dark brown washed with green; throat white; rest of the body underneath, with the under wing-coverts, ochraceous buff; quills dusky below, with the inner web margined with pale ochraceous. Total length 12 inches, culmen 1·95, wing 6·35, tail 4·7, tarsus 0·9.

Female (immature). Differs from the male in its reddish tail. The hind neck and the undersurface having dusky margins to the feathers, show that the bird is not quite adult.

The figures in the Plate are drawn from the pair in the British Museum.

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